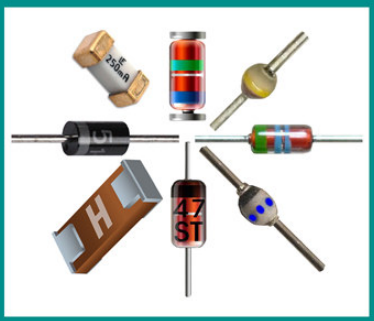
COLOR & IRREGULAR MARKING

DATABOOK

ELECTRONIC COMPONENTS COLOR CODES AND IRREGULAR MARKING

- 12150 color and irregular marking codes
- Diodes
- Transistors
- Integrated circuits
- Marking style
- Manufacturers



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ELECTRONICS COMPONENTS

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Eugeniu Turuta
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ELECTRONIC COMPONENTS
COLOR CODES
AND IRREGULAR MARKING

DATABOOK

Chisinau, Toronto, 2021

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Abbreviations

In the following tables sections the active and passive electronic components - irrelevant as to whether it is dealing with transistors, diodes, integrated circuits etc. are placed in separate tables according to numbers of terminals and (or) type of cases and are listed in alpha-numeric order by marking color name or irregular code marking.

Column "Type"

The type designations correspond to those of the respective manufacturer documentations.

Column "Function"

Short definition of the active and passive electronic components.

Used abbreviations:

C-diode	Capacitance diode
CPE	Circuit Protector Element
DC/DC-IC	DC/DC voltage converter integrated circuit
Fiac	
Fuse	Passive overcurrent protection element
LVR-IC	Linear voltage regulator integrated circuit
MMIC	Monolithic Microwave Integrated Circuit
-MOSFET	Metal-Oxide-Semiconductor FET
n-	n-channel junction transistor
p-	p-channel junction transistor
PIN-diode	Diode with a wide, undoped intrinsic semiconductor region
Si-diode	Silicon diode
Si-npn	Silicon npn transistor
Si-npn-Digi	Silicon npn "digital" transistor
Si-pnp	Silicon pnp transistor
Si-pnp-Digi	Silicon pnp "digital" transistor
Si-stabistor	Silicon stabistor
Tdet-IC	Thermal detector integrated circuit
Vdet-IC	Voltage Detector integrated circuit
Vref-IC	Voltage Reference integrated circuit
Z-diode	Zener diode

Column "Short description"

Short data or description of function of each type.
Used abbreviations:

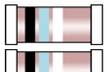
Adj.	Adjust, adjustable
AF	Audio Frequency
AM	Amplitude Modulation (AM range)
Amp	Amplifier
Att	Attenuator
Aval	Avalanshe
Disc.	Internal CL discharge
BTL	Bridge Tied Loads
Buff	Buffer
CATV	Broad band cable amplifier
+CE	Active HIGH Chip Enable
-CE	Active LOW Chip Enable
CL	Internal CL discharge resistor
Contr	Controlled
Conv	Converter
Det	Detector
DG	Dual Gate
Diff	Differential
Dr, Drv	Driver
EN	Enable
Ext.	External
FM	Frequency Modulation (FM range)
GaAs	Gallium arsenide
GP	General Purpose Applications
HF	High Frequency
H-Free	Halogen-free
Hi-sp	High-speed
HV	High Voltage
LDO	Low drop voltage
L-free	Lead-free
LN	Low Noise
LogL	Logic Level (Uth > 0,8...2V)
Lo-sat	Low collector-emitter saturation voltage
Mix	Mixer
MR	Manual Reset
OCL	Output Current Limiter
ODO	Open Drain Output
OCO	Open Collector Output
OVIn	Over Voltage Rest Input (negative)
OVP	Over Voltage Protection
Osc	Oscillator
Out	Output
OV	Latched OverVoltage function
PA	Power Amplifier
Pb-free	Plumb free
PCA	Pulse Current Amplitude modulation
PDR	Internal pull-down resistor
PFM	Pulse-frequency modulation
Pow	Power
PPO	Push-Pull Output
PSM	Pulse-skip modulation
PUR	Internal pull-up resistor
PWM	Pulse-width modulation
Rdt	Reset delay time
Rectif.	Rectifier
Reg.	Regulated
Res.	Resistor
Reset-Pr.	Reset-Protection
RF	Radio Frequency applications
Rin	Input resistance
SBD	Schottky Barrier Diode
SBR	Schottky Barrier Rectifier Diode
SS	Soft start
St-dwn	Step-down
St-up	Step-up
Sw.	Switching
T-MOS	Trench-FET MOSFET
Tun	Tuner
U-Speed	Ultra-speed
UHF	RF applications (>250 MHz)
ULN	Ultra Low-Noise
VCO	Voltage controlled oscillator
VDet	Volatge Detector
VHF	RF applications (100...250MHz)
VFM	Voltage-Frequency Modulation
Vid	Video output stages
V-MOS	Vertical Metal Oxide Semiconductor
VR	Voltage Regulator
WB	Wide Band
uPower	Micro Power

SECTION 1
2-band color code
MELF case electronic components

	Case color	Cathode band color	1-Band color	Type	Function	Short description	Case	Pinout	Mnf
	black	green	brown	**BYM07-300**	Si-diode	Rectif, U-fast, 300V, 500mA, Vf<1.35V(500mA, 50ns, 7pF	DO-213AA	15d	Vs
	black	green	brown	**BYM12-300**	Si-diode	Rectif, U-fast, 300V, 1A, Vf<1.25V(1A), 50ns, 15pF	DO-213AB	15d	Vs
	black	green	brown	**EGL34F**	Si-diode	Rectif, U-fast, 300V, 500mA, Vf<1.35V(500mA, 50ns, 7pF	DO-213AA	15d	Vs
	black	green	brown	**EGL41F**	Si-diode	Rectif, U-fast, 300V, 1A, Vf<1.25V(1A) 50ns, 15pF	DO-213AB	15d	Vs
	black	green	grey	**BYM07-050**	Si-diode	Rectif, U-fast, 50V, 500mA, Vf<1.25V(500mA, 50ns, 7pF	DO-213AA	15d	Vs
	black	green	grey	**BYM12-50**	Si-diode	Rectif, U-fast, 50V, 1A, Vf<1V(1A), 50ns, 15pF	DO-213AB	15d	Vs
	black	green	grey	**EGL34A**	Si-diode	Rectif, U-fast, 50V, 500mA, Vf<1.25V(500mA, 50ns, 7pF	DO-213AA	15d	Vs
	black	green	grey	**EGL41A**	Si-diode	Rectif, U-fast, 50V, 1A, Vf<1V(1A) 50ns, 15pF	DO-213AB	15d	Vs
	black	green	orange	**BYM07-200**	Si-diode	Rectif, U-fast, 200V, 500mA, Vf<1.25V(500mA, 50ns, 7pF	DO-213AA	15d	Vs
	black	green	orange	**BYM12-200**	Si-diode	Rectif, U-fast, 200V, 1A, Vf<1V(1A), 50ns, 15pF	DO-213AB	15d	Vs
	black	green	orange	**EGL34D**	Si-diode	Rectif, U-fast, 200V, 500mA, Vf<1.25V(500mA, 50ns, 7pF	DO-213AA	15d	Vs
	black	green	orange	**EGL41D**	Si-diode	Rectif, U-fast, 200V, 1A, Vf<1V(1A) 50ns, 15pF	DO-213AB	15d	Vs
	black	green	pink	**BYM07-150**	Si-diode	Rectif, U-fast, 150V, 500mA, Vf<1.25V(500mA, 50ns, 7pF	DO-213AA	15d	Vs
	black	green	pink	**BYM12-150**	Si-diode	Rectif, U-fast, 150V, 1A, Vf<1V(1A), 50ns, 15pF	DO-213AB	15d	Vs
	black	green	pink	**EGL34C**	Si-diode	Rectif, U-fast, 150V, 500mA, Vf<1.25V(500mA, 50ns, 7pF	DO-213AA	15d	Vs
	black	green	pink	**EGL41C**	Si-diode	Rectif, U-fast, 150V, 1A, Vf<1V(1A) 50ns, 15pF	DO-213AB	15d	Vs
	black	green	red	**BYM07-100**	Si-diode	Rectif, U-fast, 100V, 500mA, Vf<1.25V(500mA, 50ns, 7pF	DO-213AA	15d	Vs
	black	green	red	**BYM12-100**	Si-diode	Rectif, U-fast, 100V, 1A, Vf<1V(1A), 50ns, 15pF	DO-213AB	15d	Vs
	black	green	red	**EGL34B**	Si-diode	Rectif, U-fast, 100V, 500mA, Vf<1.25V(500mA, 50ns, 7pF	DO-213AA	15d	Vs
	black	green	red	**EGL41B**	Si-diode	Rectif, U-fast, 100V, 1A, Vf<1V(1A) 50ns, 15pF	DO-213AB	15d	Vs
	black	green	yellow	**BYM07-400**	Si-diode	Rectif, U-fast, 400V, 500mA, Vf<1.35V(500mA, 50ns, 7pF	DO-213AA	15d	Vs
	black	green	yellow	**BYM12-400**	Si-diode	Rectif, U-fast, 400V, 1A, Vf<1.25V(1A), 50ns, 15pF	DO-213AB	15d	Vs
	black	green	yellow	**EGL34G**	Si-diode	Rectif, U-fast, 400V, 500mA, Vf<1.35V(500mA, 50ns, 7pF	DO-213AA	15d	Vs
	black	green	yellow	**EGL41G**	Si-diode	Rectif, U-fast, 400V, 1A, Vf<1.25V(1A) 50ns, 15pF	DO-213AB	15d	Vs
	black	orange	green	**BYM13-60**	Si-diode	SBD Rectif, 60V, 1A, Vf<0.7V(1A), 80pF	DO-213AB	15d	Vs
	black	orange	green	**SGL41-60**	Si-diode	SBD Rectif, 60V, 1A, Vf<0.7V(1A), 80pF	DO-213AB	15d	Vs
	black	orange	grey	**BYM13-20**	Si-diode	SBD Rectif, 20V, 1A, Vf<0.5V(1A), 80pF	DO-213AB	15d	Vs
	black	orange	grey	**SGL41-20**	Si-diode	SBD Rectif, 20V, 1A, Vf<0.5V(1A), 80pF	DO-213AB	15d	Vs
	black	orange	orange	**BYM13-40**	Si-diode	SBD Rectif, 40V, 1A, Vf<0.5V(1A), 80pF	DO-213AB	15d	Vs
	black	orange	orange	**SGL41-40**	Si-diode	SBD Rectif, 40V, 1A, Vf<0.5V(1A), 80pF	DO-213AB	15d	Vs
	black	orange	red	**BYM13-30**	Si-diode	SBD Rectif, 30V, 1A, Vf<0.5V(1A), 80pF	DO-213AB	15d	Vs
	black	orange	red	**SGL41-30**	Si-diode	SBD Rectif, 30V, 1A, Vf<0.5V(1A), 80pF	DO-213AB	15d	Vs
	black	orange	yellow	**BYM13-50**	Si-diode	SBD Rectif, 50V, 1A, Vf<0.7V(1A), 80pF	DO-213AB	15d	Vs
	black	orange	yellow	**SGL41-50**	Si-diode	SBD Rectif, 50V, 1A, Vf<0.7V(1A), 80pF	DO-213AB	15d	Vs
	black	red	blue	**BYM11-800**	Si-diode	Rectif, Fast, 800V, 1A, Vf<1.3V(1A), 500ns, 15pF	DO-213AB	15d	Vs
	black	red	blue	**RGL34K**	Si-diode	Rectif, Fast, 800V, 1A, Vf<1.3V(1A), 250ns, 4pF	DO-213AA	15d	Vs

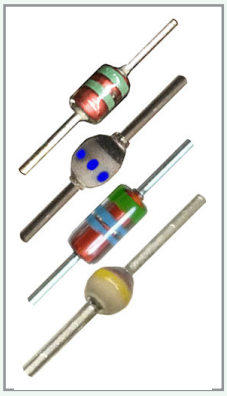
SECTION 2

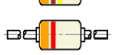
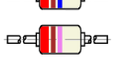
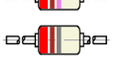
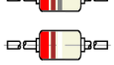
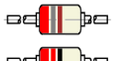
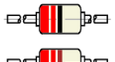
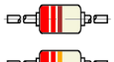
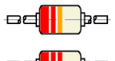
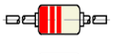
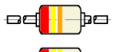
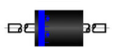
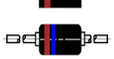
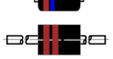
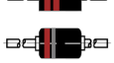
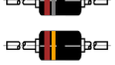
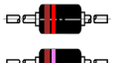
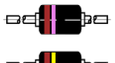
3-band color code
MELF case electronic components

	Case color	Cathode band color	1-Band color	2-Band color	Type	Function	Short description	Case	Pinout	Mnf
	tomato	black	blue	green	**RLZ3.3B**	Zener diode	3.32..3.53V, Izt=20mA, Zzt=70Ω, 500mW	LL-34	15d	Rhm
	tomato	black	blue	green	**RLZ5226B**	Zener diode	3.14..3.47V, Iz=20mA, Zz=28Ω, 500mW	LL-34	15d	Rhm
	tomato	black	blue	yellow	**RLZ3.3A**	Zener diode	3.16..3.38V, Izt=20mA, Zzt=70Ω, 500mW	LL-34	15d	Rhm
	tomato	black	brown	green	**RLZ2.0B**	Zener diode	2.02..2.2V, Izt=20mA, Zzt=140Ω, 500mW	LL-34	15d	Rhm
	tomato	black	brown	green	**RLZ5221B**	Zener diode	2.28..2.52V, Iz=20mA, Zz=30Ω, 500mW	LL-34	15d	Rhm
	tomato	black	brown	yellow	**RLZ2.0A**	Zener diode	1.88..2.1V, Izt=20mA, Zzt=140Ω, 500mW	LL-34	15d	Rhm
	tomato	black	green	dark blue	**CCLM3500**	Si-diode	Current-limiting, 3.2V, 3.0..4.1mA	SOD-80	15d	Cen
	tomato	black	green	green	**CCLM2000**	Si-diode	Current-limiting, 2.3V, 1.68..2.32mA	SOD-80	15d	Cen
	tomato	black	green	green	**RLZ3.0B**	Zener diode	3.01..3.22V, Izt=20mA, Zzt=80Ω, 500mW	LL-34	15d	Rhm
	tomato	black	green	green	**RLZ5225B**	Zener diode	2.85..3.15V, Iz=20mA, Zz=29Ω, 500mW	LL-34	15d	Rhm
	tomato	black	green	light blue	**CCLM2700**	Si-diode	Current-limiting, 2.7V, 2.28..3.1mA	SOD-80	15d	Cen
	tomato	black	green	orange	**CCLM1500**	Si-diode	Current-limiting, 2.0V, 1.28..1.72mA	SOD-80	15d	Cen
	tomato	black	green	pink	**CCLM1000**	Si-diode	Current-limiting, 1.7V, 0.88..1.32mA	SOD-80	15d	Cen
	tomato	black	green	violet	**CCLM4500**	Si-diode	Current-limiting, 3.7V, 3.90..5.10mA	SOD-80	15d	Cen
	tomato	black	green	white	**CCLM5750**	Si-diode	Current-limiting, 4.5V, 5.0..6.5mA	SOD-80	15d	Cen
	tomato	black	green	yellow	**CCLHM080**	Si-diode	Current-limiting, 3.1V, 8.2mA	SOD-80	15d	Cen
	tomato	black	green	yellow	**RLZ3.0A**	Zener diode	2.85..3.07V, Izt=20mA, Zzt=80Ω, 500mW	LL-34	15d	Rhm
	tomato	black	grey	green	**RLZ3.9B**	Zener diode	3.89..4.16V, Izt=20mA, Zzt=50Ω, 500mW	LL-34	15d	Rhm
	tomato	black	grey	green	**RLZ5228B**	Zener diode	3.71..4.10V, Iz=20mA, Zz=23Ω, 500mW	LL-34	15d	Rhm
	tomato	black	grey	yellow	**RLZ3.9A**	Zener diode	3.74..4.01V, Izt=20mA, Zzt=50Ω, 500mW	LL-34	15d	Rhm
	tomato	black	light blue	blue	**F-701**	Si-stabistor	10V, Ip=0.6..0.92mA	LLD	15d	Set
	tomato	black	light blue	dark blue	**CCLM0750**	Si-diode	Current-limiting, 1.4V, 0.6..0.92mA	SOD-80	15d	Cen
	tomato	black	light blue	green	**CCLM0500**	Si-diode	Current-limiting, 1.1V, 0.4..0.63mA	SOD-80	15d	Cen
	tomato	black	light blue	orange	**CCLM0300**	Si-diode	Current-limiting, 0.8V, 0.2..0.42mA	SOD-80	15d	Cen
	tomato	black	light blue	orange	**F-301**	Si-stabistor	10V, Ip=0.2..0.42mA	LLD	15d	Set
	tomato	black	light blue	pink	**CCLM0130**	Si-diode	Current-limiting, 0.6V, 0.05..0.21mA	SOD-80	15d	Cen
	tomato	black	light blue	pink	**F-101**	Si-stabistor	10V, Ip=0.05..0.21mA	LLD	15d	Set
	tomato	black	light blue	white	**CCLM0035**	Si-diode	Current-limiting, 0.4V, 0.01..0.06mA	SOD-80	15d	Cen
	tomato	black	light blue	white	**F-101L**	Si-stabistor	10V, Ip=0.01..0.06mA	LLD	15d	Set
	tomato	black	light blue	yellow green	**F-501**	Si-stabistor	10V, Ip=0.4..0.63mA	LLD	15d	Set
	tomato	black	orange	green	**RLZ2.4B**	Zener diode	2.43..2.63V, Izt=20mA, Zzt=100Ω, 500mW	LL-34	15d	Rhm
	tomato	black	orange	green	**RLZ5223B**	Zener diode	2.57..2.84V, Iz=20mA, Zz=30Ω, 500mW	LL-34	15d	Rhm
	tomato	black	orange	light blue	**CCLHM150**	Si-diode	Current-limiting, 4.3V, 15mA	SOD-80	15d	Cen
	tomato	black	orange	light blue	**F-153**	Si-stabistor	10V, Ip=12.0.18.0mA	LLD	15d	Set
	tomato	black	orange	pink	**CCLHM100**	Si-diode	Current-limiting, 3.5V, 10mA	SOD-80	15d	Cen
	tomato	black	orange	pink	**F-103**	Si-stabistor	10V, Ip=8.0..12.0mA	LLD	15d	Set

SECTION 3

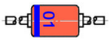
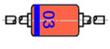
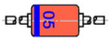
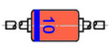
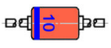
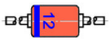
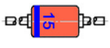
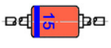
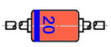
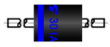
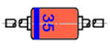
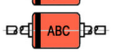
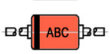
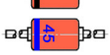
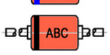
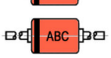
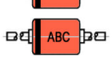
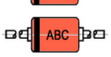
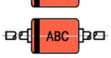
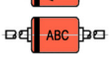
Axial case electronic components color code marking



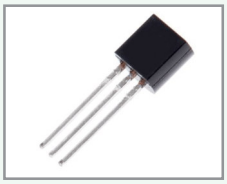
	Case color	Cathode band color	1-Band color	2-Band color	3-Band color	Type	Function	Short description	Case	Pinout	Mnf
	beige	orange	brown	-	-	**1N4531**	Si-diode	GP, 75V, 200mA, Vf<1V(10mA), 4ns, 4pF	DO-34	99d	Phi
	beige	orange	brown	blue	-	**BA316**	Si-diode	GP, 10V, 100mA, Vf<1.1V(100mA), <4ns, 3pF	DO-35	99d	Phi
	beige	orange	brown	green	-	**BA315**	Si-stabistor	GP, 225mA, Vf<0.98V(100mA), 3pF	DO-35	99d	Phi
	beige	orange	brown	grey	-	**BA318**	Si-diode	GP, 50V, 100mA, Vf<1.1V(100mA), <4ns, 3pF	DO-35	99d	Phi
	beige	orange	brown	violet	-	**BA317**	Si-diode	GP, 30V, 100mA, Vf<1.1V(100mA), <4ns, 3pF	DO-35	99d	Phi
	beige	orange	brown	yellow	-	**BA314**	Si-stabistor	GP, 250mA, Vf<0.92V(100mA), 140pF	DO-35	99d	Phi
	beige	orange	red	-	-	**1N4532**	Si-diode	GP, 75V, 200mA, Vf<1V(10mA), 4ns, 2pF	DO-34	99d	Phi
	beige	red	brown	blue	-	**BA216**	Si-stabistor	GP, 10V, 75mA, Vf<0.8V(3mA), <4ns, 3pF	SOD-17	99d	Phi
	beige	red	brown	grey	-	**BA218**	Si-diode	GP, Sw, 50V, 75mA, Vf<1.5V(50mA), <4ns, 3pF	SOD-17	99d	Phi
	beige	red	brown	violet	-	**BA217**	Si-diode	GP, Sw, 30V, 75mA, Vf<1.5V(50mA), <4ns, 3pF	SOD-17	99d	Phi
	beige	red	brown	white	-	**BA219**	Si-diode	GP, Sw, 100V, 100mA, Vf<1.4V(100mA), <120ns, 5pF	SOD-17	99d	Phi
	beige	red	grey	brown	-	**BA281**	Si-diode	Ratio Detector, 50V, 200mA, Vf<1V(100mA), 1.2pF	DO-35	99d	Phi
	beige	red	red	black	-	**BA221**	Si-diode	GP, 30V, 200mA, Vf<1.05V(200mA), <4ns, 2.5pF	DO-35	99d	Phi
	beige	red	red	brown	-	**BA220**	Si-diode	GP, 30V, 200mA, Vf<0.95V(100mA), <4ns, 2.5pF	DO-35	99d	Phi
	beige	red	red	orange	-	**BA223**	Si-diode	AM-Band-Sw, 20V, 50mA, Vf<1V(50mA), 3.5pF	DO-35	99d	Phi
	beige	red	red	red	-	**BA222**	Si-diode	GP, Sw, 50V, 75mA, Vf<1.1V(50mA), <4ns, 2pF	DO-35	99d	Phi
	beige	red	yellow	orange	-	**BA243**	Si-diode	VHF-Band-Sw, 35V, 100mA, Vf<1V(100mA), 2pF	DO-35	99d	Phi
	beige	red	yellow	yellow	-	**BA244**	Si-diode	VHF-Band-Sw, 35V, 100mA, Vf<1V(100mA), 2pF	DO-35	99d	Phi
	beige	white	brown	blue	-	**1N916**	Si-diode	Sw, 100V, 200mA, Vf<1V(100mA), 2pF	DO-35	99d	Phi
	beige	white	brown	blue	brown	**1N916A**	Si-diode	Sw, 100V, 200mA, Vf<1V(20mA), 4pF	DO-35	99d	Phi
	beige	white	brown	blue	red	**1N916B**	Si-diode	Sw, 100V, 200mA, Vf<0.72V(5mA), 4pF	DO-35	99d	Phi
	beige	white	brown	yellow	-	**1N914**	Si-diode	Sw, 100V, 200mA, Vf<1V(100mA), 2pF	DO-35	99d	Phi
	beige	white	brown	yellow	brown	**1N914A**	Si-diode	Sw, 100V, 200mA, Vf<1V(20mA), 4pF	DO-35	99d	Phi
	black	blue	-	-	-	**DSM1SD4**	Si-diode	Rectif., 400V, 1A, Vf<1.1V(1A)	Outline No.5	97d	Hit
	black	blue	blue	-	-	**BYX134GPL**	Si-diode	HV Rectif, 4kV, 50mA, Vf<7V(10mA)	SOD-125A	97d	Phi
	black	blue	blue	-	-	**BYX134GPS**	Si-diode	HV Rectif, 4kV, 50mA, Vf<7V(10mA)	SOD-118A	97d	Phi
	black	blue	blue	-	-	**S5688G**	Si-diode	Rectif, 400V, 1A, Vf<1.2V(1A)	3-3F2A	97d	Tos
	black	brown	-	-	-	**BYX133GPL**	Si-diode	HV Rectif, 3kV, 50mA, Vf<5.25V(10mA)	SOD-125A	97d	Phi
	black	brown	blue	-	-	**BAX16**	Si-diode	GP, 150V, 300mA, Vf<1.3V(100mA), <120ns, 10pF	DO-35	99d	Phi
	black	brown	brown	-	-	**BYX133GPS**	Si-diode	HV Rectif, 3kV, 50mA, Vf<5.25V(10mA)	SOD-118A	97d	Phi
	black	brown	grey	-	-	**BAX18**	Si-diode	GP, 75V, 400mA, Vf<1.5V(2A), 20pF	DO-35	99d	Phi
	black	brown	orange	-	-	**BAX13**	Si-diode	GP, 50V, 75mA, Vf<1.1V(100mA), 3pF, 4ns	DO-35	99d	Phi
	black	brown	red	-	-	**BAX12**	Si-diode	Ctrl. avalanche, 90V, 400mA, Vf<1V(200mA), 50ns	DO-35	99d	Phi
	black	brown	violet	-	-	**BAX17**	Si-diode	GP, 200V, 300mA, Vf<1.2V(200mA), <120ns, 10pF	DO-35	99d	Phi
	black	brown	yellow	-	-	**BAX14**	Si-diode	GP, 40V, 400mA, Vf<1V(300mA), <50ns, 20pF	DO-35	99d	Phi
	black	green	-	-	-	**BB909B**	C-diode	VHF TV-tuning, 30V, 20mA, 33.5/3.2pF (1..28V)	DO-34	99d	Phi

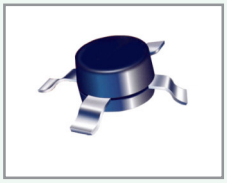
SECTION 4

Axial case electronic component irregular marking

	Marking code	Case color	Cathode band color	Marking color	Type	Function	Short description	Case	Style	Pinout	Mnf
	**01**	black	white	white	DHM30A10	Si-diode	Fast Recov. Rectif., 1kV, 30mA, Vf<2V(10mA), 2pF	Outline No.14	15b	97d	Hit
	**01**	black	white	white	DHM30A20	Si-diode	Fast Recov. Rectif., 2kV, 30mA, Vf<5V(10mA), 2pF	Outline No.14	15b	97d	Hit
	**01**	black	white	white	DHM30A30	Si-diode	Fast Recov. Rectif., 3kV, 30mA, Vf<6V(30mA), 1.6pF	Outline No.14	15m	97d	Hit
	**01**	tomato	blue	blue	E-101	Si-stabistor	10V, Ip=0.05..0.21mA	LLD	15ha	99d	Set
	**1**	tomato	light blue	black	1SS120	Si-diode	Hi-speed sw., 70V, 150mA, Vf<0.8V(10mA), 3pF	MHD	15hb	99d	Ren
	**1**	tomato	verdure	verdure	1SV121	Pin-diode	HF atten., 100V, 100mA, Vf<1.1V(50mA), 0.7pF	MHD	15hb	99d	Ren
	**03**	tomato	blue	blue	E-301	Si-stabistor	10V, Ip=0.2..0.42mA	LLD	15ha	99d	Set
	**05**	tomato	blue	blue	E-501	Si-stabistor	10V, Ip=0.4..0.63mA	LLD	15ha	99d	Set
	**07**	tomato	blue	blue	E-701	Si-stabistor	10V, Ip=0.6..0.92mA	LLD	15ha	99d	Set
	**7**	tomato	green	black	1SS286	Si-diode	Hi-speed sw., 25V, 35mA, Vf<0.6V(10mA), 1.2pF	MHD	15hb	99d	Ren
	**1E1**	black	yellow	yellow	DSM1E1	Si-diode	Rectif, 100V, 1A, Vf<1V(1A)	Outline No.4	15b	97d	Hit
	**10**	tomato	blue	blue	E-102	Si-stabistor	10V, Ip=0.88..1.32mA	LLD	15ha	99d	Set
	**10**	tomato	blue	blue	E-103	Si-stabistor	10V, Ip=8.0..12.0mA	LLD	15ha	99d	Set
	**12**	tomato	blue	blue	E-123	Si-stabistor	10V, Ip=9.6..14.4mA	LLD	15ha	99d	Set
	**15**	tomato	blue	blue	E-152	Si-stabistor	10V, Ip=1.28..1.72mA	LLD	15ha	99d	Set
	**15**	tomato	blue	blue	E-153	Si-stabistor	10V, Ip=12.0..18.0mA	LLD	15ha	99d	Set
	**20**	tomato	blue	blue	E-202	Si-stabistor	10V, Ip=1.68..2.32mA	LLD	15ha	99d	Set
	**27**	tomato	blue	blue	E-272	Si-stabistor	10V, Ip=2.28..3.10mA	LLD	15ha	99d	Set
	**29**	black	blue	blue	1S1829	Si-diode	Rectif., 800V, 1A, Vf<1.2V(1.5A)	DO-15	15mb	97d	Tos
	**30**	black	blue	blue	1S1830	Si-diode	Rectif., 100V, 1A, Vf<1.2V(1.5A)	DO-15	15mb	97d	Tos
	**32**	black	yellow	yellow	1S1832	Si-diode	Fast recov. rectif., 1800V, 700mA, Vf<2V(1.5A), 6us	DO-15	15mb	97d	Tos
	**34**	black	yellow	yellow	1S1834	Si-diode	H-Speed Rectif., 300V, 1A, Vf<1.2V(1.5A), 1.5us	DO-15	15mb	97d	Tos
	**35**	black	yellow	yellow	1S1835	Si-diode	H-Speed Rectif., 500V, 1A, Vf<1.2V(1.5A), 1.5us	DO-15	15mb	97d	Tos
	**35**	tomato	blue	blue	E-352	Si-stabistor	10V, Ip=3.0..4.10mA	LLD	15ha	99d	Set
	**43**	tomato	black	black	GDZ43	Zener diode	40.0..45.0V, Zzt=90 Ω, Izt=5.0mA, 500mW	DO-35	15h	99d	Pjt
	**43**	tomato	black	black	LMTZJ43	Zener diode	40..45V, Izt=5mA, 500mW	DO-35	15k	99d	Lrc
	**43**	tomato	black	black	LMTZJ43	Zener diode	40..45V, Izt=5mA, 500mW	DO-34	15k	99d	Lrc
	**45**	tomato	blue	blue	E-452	Si-stabistor	10V, Ip=3.9..5.10mA	LLD	15ha	99d	Set
	**47**	tomato	black	black	GDZ47	Zener diode	44.0..49.0V, Zzt=90 Ω, Izt=5.0mA, 500mW	DO-35	15h	99d	Pjt
	**47**	tomato	black	black	LMTZJ47	Zener diode	44..49V, Izt=5mA, 500mW	DO-35	15k	99d	Lrc
	**47**	tomato	black	black	LMTZJ47	Zener diode	44..49V, Izt=5mA, 500mW	DO-34	15k	99d	Lrc
	**51**	tomato	black	black	GDZ51	Zener diode	48.0..54.0V, Zzt=110 Ω, Izt=5.0mA, 500mW	DO-35	15h	99d	Pjt
	**51**	tomato	black	black	LMTZJ51	Zener diode	48..54V, Izt=5mA, 500mW	DO-35	15k	99d	Lrc
	**51**	tomato	black	black	LMTZJ51	Zener diode	48..54V, Izt=5mA, 500mW	DO-34	15k	99d	Lrc
	**56**	tomato	black	black	GDZ56	Zener diode	53.0..60.0V, Zzt=110 Ω, Izt=5.0mA, 500mW	DO-35	15h	99d	Pjt
	**56**	tomato	black	black	LMTZJ56	Zener diode	53..60V, Izt=5mA, 500mW	DO-35	15k	99d	Lrc

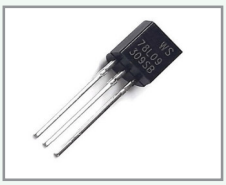
SECTION 5
Leaded case electronic components irregular marking

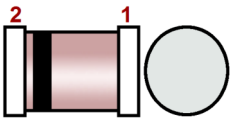




Marking code	Type	Function	Short description	Case	Style	Atrib	Sch	Pinout	Data	Mnf
1	ERA-1	MMIC	RF Amp, DC..8GHz, 9dB (50Ω)	SOT-173A	13c	-	A1	106aa	-	Mc
1	ERA-1SM	MMIC	RF Amp, DC..8GHz, 9dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
01	MAR-1SM	MMIC	RF Amp, DC..1GHz, 15.5dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
01	RAM-1	MMIC	RF Amp, DC..1GHz, 13dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
1	RAM-1	MMIC	RF Amp, DC..1GHz, 13dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
2	ERA-2	MMIC	RF Amp, DC..6GHz, 13dB (50Ω)	SOT-173A	13c	-	A1	106aa	-	Mc
2	ERA-2SM	MMIC	RF Amp, DC..6GHz, 13dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
02	MAR-2SM	MMIC	RF Amp, DC..2GHz, 11dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
02	RAM-2	MMIC	RF Amp, DC..2GHz, 8.5dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
2	RAM-2	MMIC	RF Amp, DC..2GHz, 8.5dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
3	ERA-3	MMIC	RF Amp, DC..3GHz, 16dB (50Ω)	SOT-173A	13c	-	A1	106aa	-	Mc
3	ERA-3SM	MMIC	RF Amp, DC..3GHz, 16dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
03	MAR-3SM	MMIC	RF Amp, DC..2GHz, 10.5dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
03	RAM-3	MMIC	RF Amp, DC..2GHz, 8dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
3	RAM-3	MMIC	RF Amp, DC..2GHz, 8dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
4	ERA-4	MMIC	RF Amp, DC..4GHz, 11dB (50Ω)	SOT-173A	13c	-	A1	106aa	-	Mc
4	ERA-4SM	MMIC	RF Amp, DC..4GHz, 11dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
04	MAR-4SM	MMIC	RF Amp, DC..1GHz, 8dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
04	RAM-4	MMIC	RF Amp, DC..1GHz, 7dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
4	RAM-4	MMIC	RF Amp, DC..1GHz, 7dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
5	ERA-5	MMIC	RF Amp, DC..4GHz, 16dB (50Ω)	SOT-173A	13c	-	A1	106aa	-	Mc
5	ERA-5SM	MMIC	RF Amp, DC..4GHz, 16dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
6	ERA-6	MMIC	RF Amp, DC..4GHz, 10.5dB (50Ω)	SOT-173A	13c	-	A1	106aa	-	Mc
6	ERA-6SM	MMIC	RF Amp, DC..4GHz, 10.5dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
06	MAR-6SM	MMIC	RF Amp, DC..2GHz, 11dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
06	RAM-6	MMIC	RF Amp, DC..2GHz, 9dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
6	RAM-6	MMIC	RF Amp, DC..2GHz, 9dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
07	MAR-7SM	MMIC	RF Amp, DC..2GHz, 11dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
07	RAM-7	MMIC	RF Amp, DC..2GHz, 8.5dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
7	RAM-7	MMIC	RF Amp, DC..2GHz, 8.5dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
08	MAR-8SM	MMIC	RF Amp, DC..1GHz, 22.5dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
08	RAM-8	MMIC	RF Amp, DC..1GHz, 19dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
8	RAM-8	MMIC	RF Amp, DC..1GHz, 19dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
21	ERA-21SM	MMIC	RF Amp, DC..8GHz, 11.2dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
33	ERA-33SM	MMIC	RF Amp, DC..3GHz, 15dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
35	EC8803-12A6NG1	LVR-IC	LDO, 1.2V±1%, 300mA	TO-92	11m	N02a	VR1	94cg	47	Ecm
35	EC8803-12A6NG2	LVR-IC	LDO, 1.2V±2%, 300mA	TO-92	11m	N02b	VR1	94cg	47	Ecm
38	EC8803-15A6NG1	LVR-IC	LDO, 1.5V±1%, 300mA	TO-92	11m	N02a	VR1	94cg	47	Ecm
38	EC8803-15A6NG2	LVR-IC	LDO, 1.5V±2%, 300mA	TO-92	11m	N02b	VR1	94cg	47	Ecm
50	ERA-50SM	MMIC	RF Amp, DC..1.5GHz, 16B (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
51	ERA-51SM	MMIC	RF Amp, DC..4GHz, 14dB (50Ω)	SOT-173	13c	-	A1	106aa	-	Mc
095	AP6209-12GE	LVR-IC	LDO, 1.2±2%, 250mA, H-free	TO-92	11e	N01e	VR1	94vl	-	Anw
095	AP6209-12PE	LVR-IC	LDO, 1.2±2%, 250mA	TO-92	11e	-	VR1	94vl	-	Anw
098	AP6209-15GE	LVR-IC	LDO, 1.5±2%, 250mA, H-free	TO-92	11e	N01e	VR1	94vl	-	Anw
098	AP6209-15PE	LVR-IC	LDO, 1.5±2%, 250mA	TO-92	11e	-	VR1	94vl	-	Anw

SECTION 6
Conventional case drawings. Pin assignment





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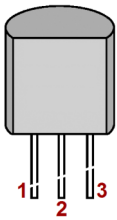

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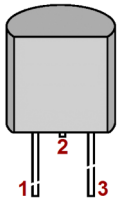

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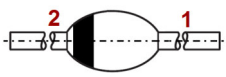

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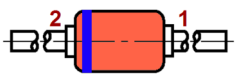

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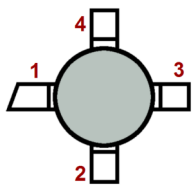
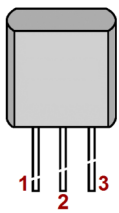


Top view

106



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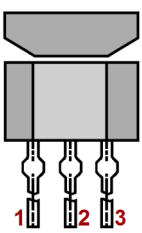

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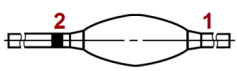

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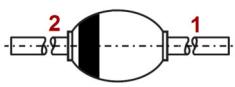

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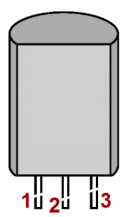
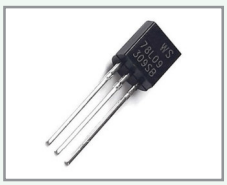


134

SECTION 7
Pinout (table)

	PIN 1	PIN2	PIN3	PIN4	PIN5	PIN6	PIN7	PIN8
a0	GND	Output	Vcc	+Input	-Input	-	-	-
a1	GND	GND	Input	GND	GND	Vcc/Out	-	-
a2	N/C	Anode	Cathode	N/C	Adjust	-	-	-
a3	CE	GND	Vinput	Voutput	Adjust	N/C	-	-
a4	CE	Vinput	Voutput	Switch	GND	Feedb.	-	-
a7	CE	GND	SSC	Vinput	Voutput	-	-	-
a8	Test	GND	Tdet	N/C	Vcc	-	-	-
a9	Tdet	GND	Test	Vcc	-	-	-	-
aa	Input	GND	Vcc/Output	GND	-	-	-	-
ab	Input	GND	GND	Output	GND	Vcc	-	-
ac	Vcc	GND	Input	GND	GND	Output	GND	GND
ad	Input	GND	Vcc	Output	GND	-	-	-
ae	Input	Vcc	GND	Output	GND	GND	-	-
af	N/C	Vinput	N/C	GND	N/C	Vout	N/C	N/C
ag	Contact	Contact	N/C	-	-	-	-	-
ah	Emitter	Emitter	Base	Emitter	Emitter	Collector	-	-
ai	GND	Vcc	Input	Output	-	-	-	-
aj	GND	Vcc/Vout	GND	Input	-	-	-	-
ak	N/C	Cathode	Anode	-	-	-	-	-
am	Vcc/Output	GND	Input	GND	-	-	-	-
an	Output	GND	Input	Vcc	GND	-	-	-
ao	Cath.(Anode)	N/C	Cath.(Anode)	Anode(Cath.)		-	-	-
ap	Cathode	N/C	Cathode	Anode	-	-	-	-
aq	Contact	N/C	Contact	-	-	-	-	-
ar	Contact	Contact	-	-	-	-	-	-
as	Emitter	Emitter	N/C	Base	Collector	Collector	Collector	Collector
at	Cathode	Gate	Anode	-	-	-	-	-
au	CE	SS	Voutput	Vinput	GND	Vbias	-	-
av	Vbias	GND	Vinput	Voutput	SS	CE	-	-
a w	CE	Ilim	Voutput	Vinput	GND	Vbias	-	-
ax	Vbias	GND	Vinput	Voutput	Ilim	CE	-	-
ay	A1=Vout2	A2=Vcc	A3=Vout1	B1=CE2	B2=GND	B3=CE1	-	-
ba	An/Cath.	An/Cath.	-	-	-	-	-	-
bb	Cathode1	Cathode2	Cathode3	Anode3	Anode2	Anode1	-	-
bd	Cathode	Cathode	Anode	-	-	-	-	-
bg	Cathode1	Cathode2	Anode2	N/C	Anode1	-	-	-
bh	Anode1	Common Cath.		Anode2	Anode3	Anode4	-	-
bi	Anode	Cathode	Anode	Anode	Cathode	Anode	-	-
bm1	N/C	Cout	Dout	GND	V+	V-	-	-
bm2	V-	V+	GND	Dout	Cout	-	-	-
bn	OVP	Vinput	CE	A GND	N/C	Feedback	Switch.	P GND
bp	Cathode	Cathode	Anode	Anode	Cathode	Cathode	-	-
bq	GND	Voutput	Lx	-	-	-	-	-
br	GND	Voutput	Ext	-	-	-	-	-
bs	Anode1	Com. Cath.	Anode2	Com. Cath.	-	-	-	-
bt	Cathode1	N/C	Cathode2	Com Anode	-	-	-	-
bu	Anode1	N/C	Anode2	Com Cath.	-	-	-	-
bv	Anode1	N/C	Cathode2	Cath.1/An2	-	-	-	-
b w	Anode1	Com Cath.	Anode2	Anode3	Com Cath.	Anode4	-	-
bx	Anode1	Cath.1/An2	Cathode2	Cathode3	An3/Cath.4	Anode4	-	-
by	Cathode1	An1/Cath.2	Anode2	Cathode3	An3/Cath.4	Anode4	-	-
bz	Cathode	Anode	Cathode	-	-	-	-	-
c	Vinput	GND	GND	Adjust	Voutput	-	-	-
c1	CE	Vinput	N/C	GND	Lx	-	-	-
c2	Sense	Vinput	N/C	GND	Lx	-	-	-
c3	N/C	Voutput	CE	Ext	GND	-	-	-
c4	N/C	Vinput	Voutput	Ext	GND	-	-	-
c5	Voutput	GND	Vinput	N/C	N/C	-	-	-
c6	Voutput	Vinput	GND	N/C	N/C	-Shutdwn	N/C	N/C
c7	Vinput	GND	-Shutdwn	-Error	Voutput	-	-	-
c8	Voutput	GND	CE	ECO	Vinput	-	-	-
c9	ECO	N/C	Vinput	Voutput	GND	CE	-	-

SECTION 8
Irregular code marking style



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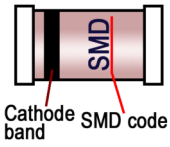

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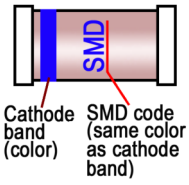

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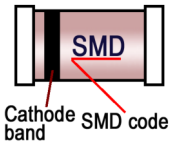

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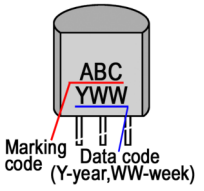

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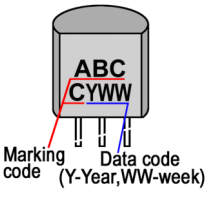

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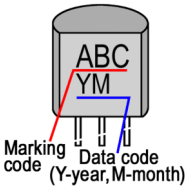

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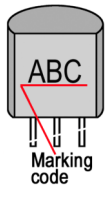

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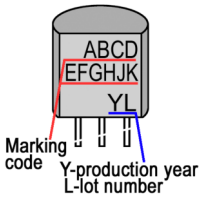

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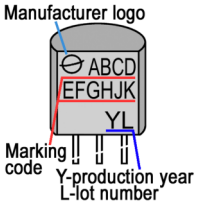

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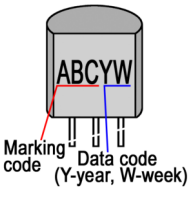

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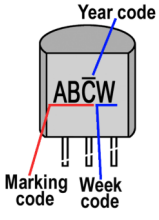

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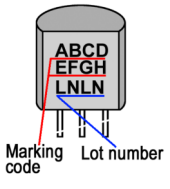

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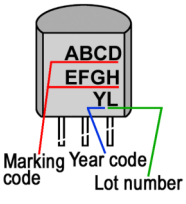

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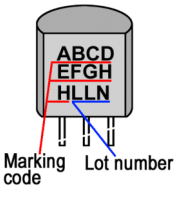

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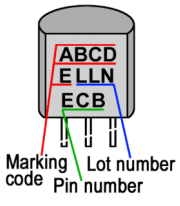

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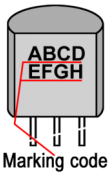

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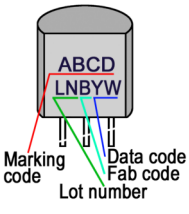

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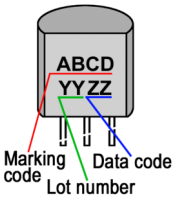

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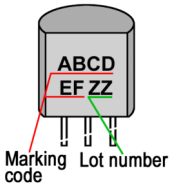

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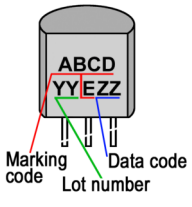

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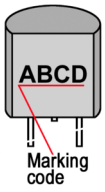

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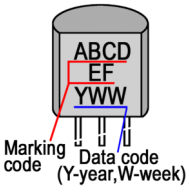

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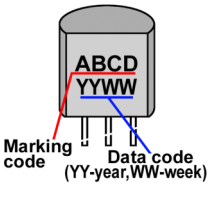

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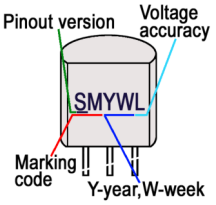

SECTION 9
Manufacturers logo and web URL

Aat- Advanced Analog Technology
http://www.aatech.com.tw/index.aspx

Abl- ABLIC Inc.
https://www.ablicinc.com/en/semicon/

Ad- Analog Devices
http://www.analog.com

Adt- ADDtek
http://www.addmtek.com/Index.htm

Agi- Agilent Technologies
www.semiconductor.agilent.com

Aic- Analog Integrations Corporation
http://www.analog.com.tw

Ali- Alliance Semiconductor
http://www.alsc.com

All- Allegro MicroSystems Inc.
http://www.allegromicro.com

Ame- AME, Inc.
www.ame.com.tw

Ams- AMOS Technology Limited
http://www.amos-tech.com

Amz- Amazing Microelectronic
http://www.amazingIC.com

Ana- Anachip Corp.
www.anachip.com.tw

Anp- Anpec Electronics Corp.
www.anpec.com.tw

Ans- AnaSem Inc.
http://www.anasem.net/

Ant- Advanced Analogic Technologies, Inc.
http://www.analogictech.com

Anv- Anova Technologies Co. Ltd
http://anova-semi.com/

Anw- Anwell Semiconductor Corp.
http://www.ansc.com.tw/

Aom- Alpha & Omega Semiconductor
http://www.aosmd.com/

Aot- IRICO AOTOM (Hong Kong) Holdings Co., Ltd.
http://www.aotom.com

Ape- Advanced Power Electronics Corp.
http://www.a-power.com.tw/index.aspx

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