LITE-ON SEMICONDUCTORS

BAW56W

SURFACE MOUNT
FAST SWITCHING DIODE

REVERSE VOLTAGE – 75 Volts
FORWARD CURRENT – 0.15 Ampere

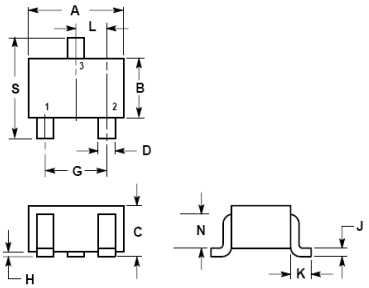
FEATURES

- Fast switching speed
- Ideally suited for automatic insertion
- For general purpose switching applications

MECHANICAL DATA

- Case: SOT-323 Plastic
- Case material: "Green" molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Moisture sensitivity: Level 1 per J-STD-020D
- Lead free in RoHS 2002/95/EC compliant

SOT-323



SOT-323		
Dim.	Min.	Max.
A	1.80	2.20
B	1.15	1.35
C	0.80	1.00
D	0.30	0.40
G	1.20	1.40
H	0.00	0.10
J	0.10	0.25
K	0.425 Ref.	
L	0.650 Bsc	
N	0.700 Ref.	
S	2.00	2.40
Dimensions in millimeter		

Maximum Ratings & Thermal Characteristics @ T_A = 25℃ unless otherwise specified

Characteristic	Symbol	BAW56W	Units
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Repetitive Peak Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current	I_{FM}	300	mA
Average Rectified Output Current	I_O	150	mA
Non-Repetitive Peak Forward @t=1us Surge Current @t=1s	I_{FSM}	2 1	A
Power Dissipation	P_D	200	mW
Thermal Resistance Junction to Ambient	$R_{\Theta JA}$	625	℃/W
Operating Temperature Range	T_J	150	℃
Storage Temperature Range	T_{STG}	-65~+150	℃

Electrical Characteristics @ T_A = 25℃ unless otherwise specified

Characteristic	Test Condition	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	I_R = 2.5uA	V_{BR}	75	--	--	V
Maximum Forward Voltage	I_F = 1mA I_F = 10mA I_F = 50mA I_F = 150mA	V_F	-- -- -- --	-- -- -- --	715 855 1000 1250	mV
Maximum DC Reverse Current at Rated DC Blocking Voltage	V_R = 75V V_R = 20V	I_R	--	--	2.5 0.025	uA
Typical Diode Capacitance	V_R =0V,f=1MHz	C_D	--	--	2	pF
Reverse Recovery time	Irr=1mA, I_R=I_F=10mA R_L=100Ω	trr	--	--	4	ns

RATING AND CHARACTERISTIC CURVES
BAW56W

Fig.1 Typical Forward Characteristics

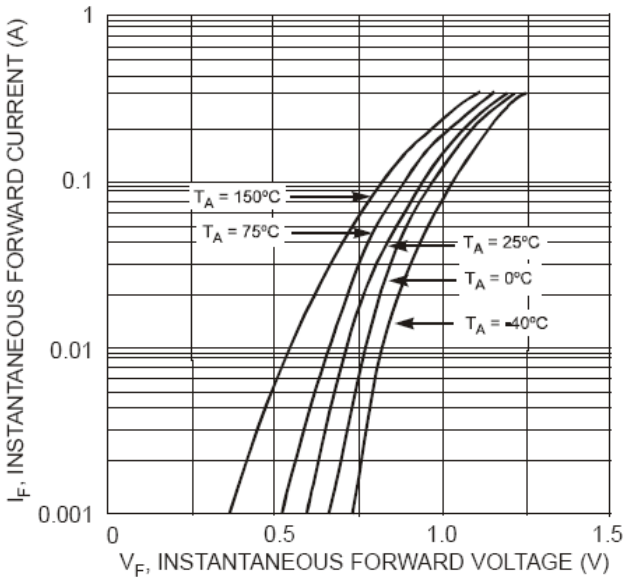


Fig.2 Typical Reverse Characteristics

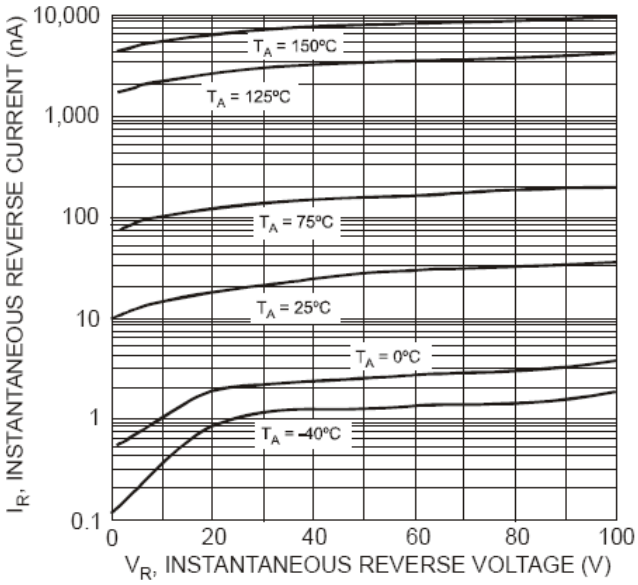


Fig.3 Total Capacitance vs. Reverse Voltage

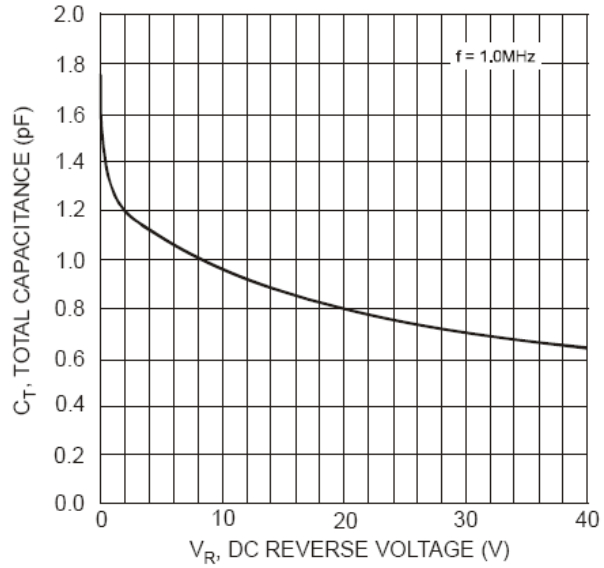


Fig.4 Reverse Recovery Time vs. Forward Current,

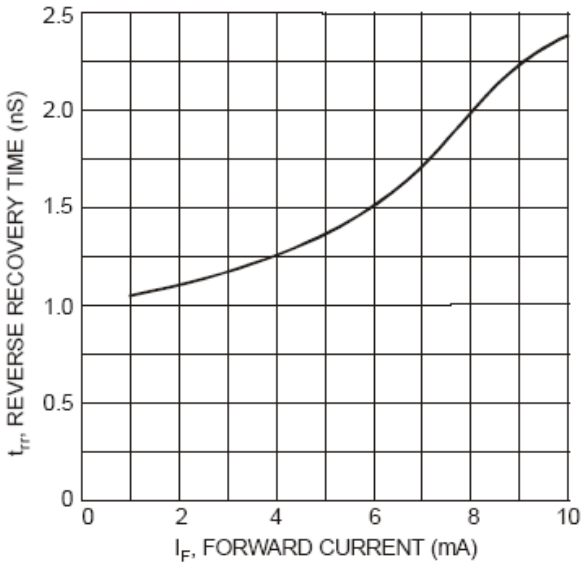
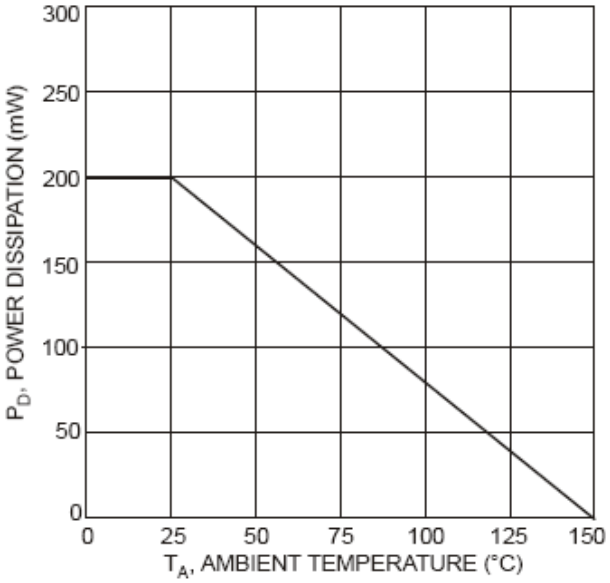
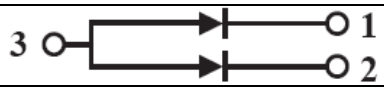


Fig.5 Power Derating Curve



Device Marking :

Device P/N	Marking code	Equivalent Circuit Diagram
BAW56W	A1	

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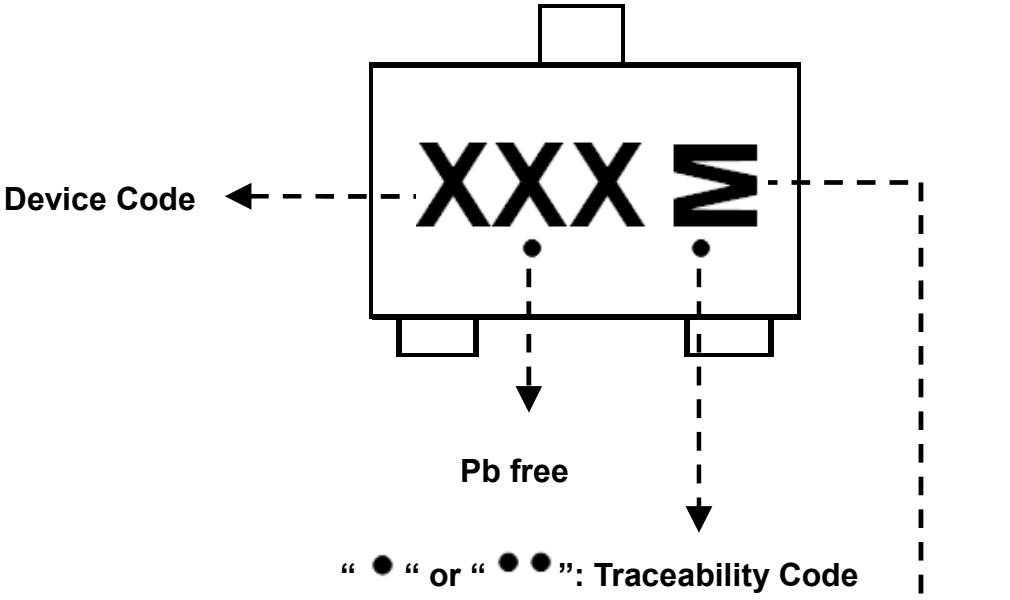
New Marking Rule Notification

Range: In order to have well management in process control, the new marking rule is applied to small signal device including Switching Diode, Transistor and Schottky Diode.

Package: SOT-23 / SOT-323 / SOT-523



Odd Year	Even Year
1	E
2	F
3	H
4	J
5	K
6	L
7	N
8	P
9	U
T	X
V	Y
C	Z