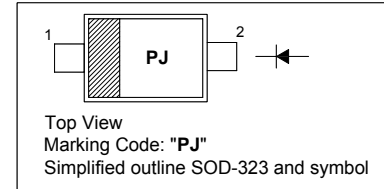


# BAW56WS

## HIGH-SPEED SWITCHING DIODE

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

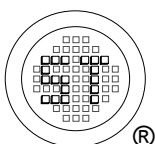


### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	85	V
Reverse Voltage	$V_R$	75	V
Continuous Forward Current	$I_F$	125	mA
Repetitive Peak Forward Current	$I_{FRM}$	450	mA
Non-repetitive Peak Forward Current $T_j = 25\text{ }^\circ\text{C}$ , at $t = 1\text{ }\mu\text{S}$ at $t = 1\text{ mS}$ at $t = 1\text{ S}$	$I_{FSM}$	4 1 0.5	A
Power Dissipation	$P_{tot}$	250	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_s$	- 65 to + 150	$^\circ\text{C}$

### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 1\text{ mA}$ at $I_F = 10\text{ mA}$ at $I_F = 50\text{ mA}$ at $I_F = 150\text{ mA}$	$V_F$	715 855 1 1.25	mV mV V V
Reverse Current at $V_R = 25\text{ V}$ at $V_R = 75\text{ V}$ at $V_R = 25\text{ V}$ , $T_j = 150\text{ }^\circ\text{C}$ at $V_R = 75\text{ V}$ , $T_j = 150\text{ }^\circ\text{C}$	$I_R$	30 1 30 50	nA $\mu\text{A}$ $\mu\text{A}$ $\mu\text{A}$
Diode Capacitance at $f = 1\text{ MHz}$	$C_d$	2	pF
Reverse Recovery Time at $I_F = 10\text{ mA}$ , $I_R = 10\text{ mA}$ , $R_L = 100\text{ }\Omega$	$t_{rr}$	4	ns
Forward Recovery Voltage at $I_F = 10\text{ mA}$ , $t_r = 20\text{ ns}$	$V_{fr}$	1.75	V



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Dated : 01/09/2006

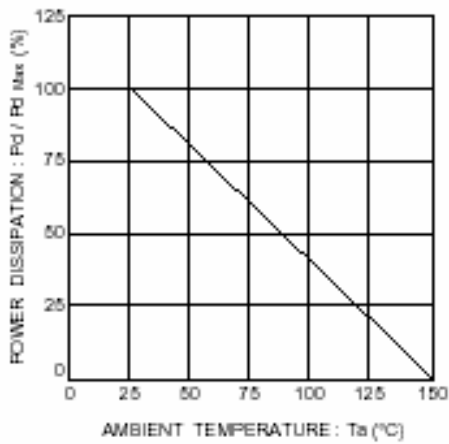


Fig. 1 Power attenuation curve

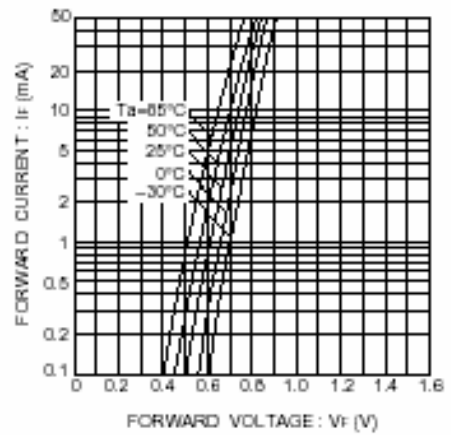


Fig. 2 Forward characteristics

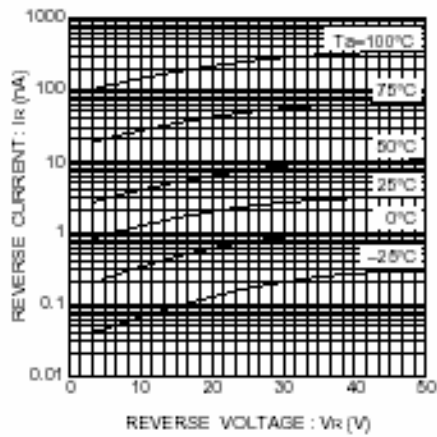


Fig. 3 Reverse characteristics

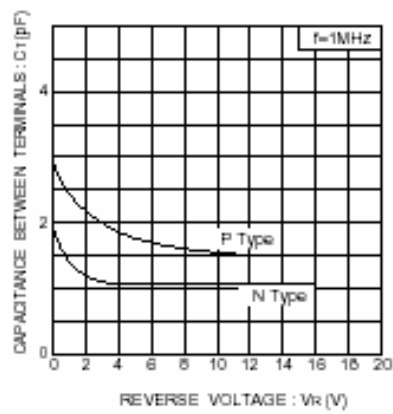


Fig. 4 Capacitance between terminals characteristics

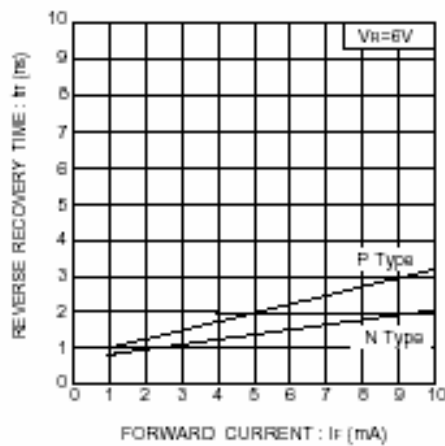
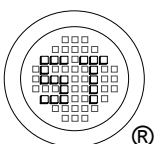


Fig. 5 Reverse recovery time



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ISO/TS 16949 : 2002  
Certificate No. 05103



ISO 14001:2004  
Certificate No. 7116



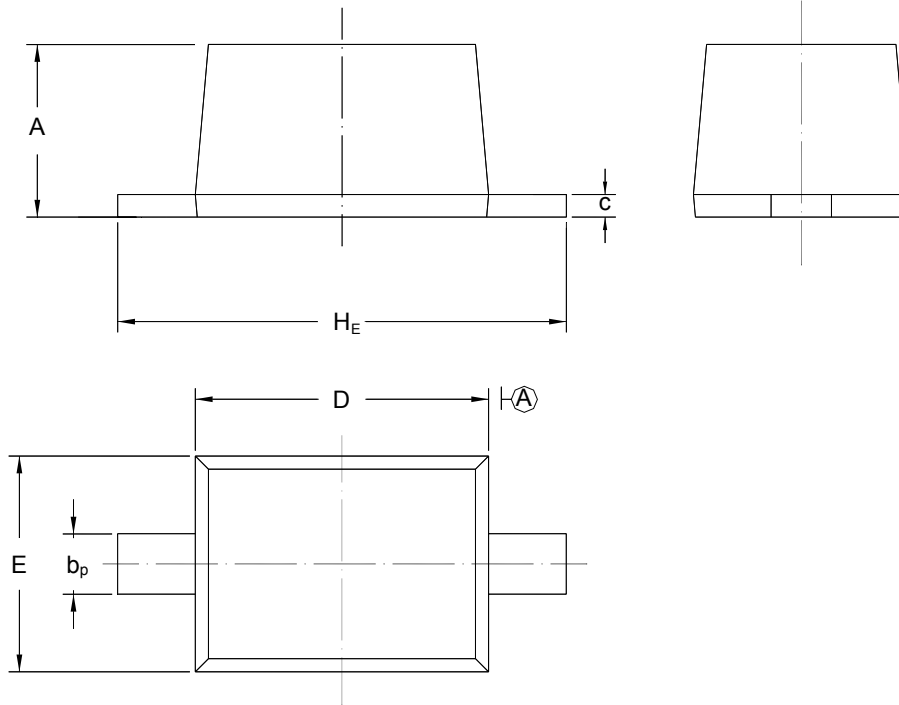
ISO 9001:2000  
Certificate No. 0506098

# BAW56WS

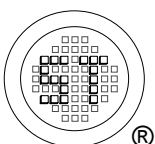
## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



UNIT	A	b <sub>p</sub>	C	D	E	H <sub>E</sub>
mm	1.10 0.80	0.40 0.25	0.15 0.00	1.80 1.60	1.35 1.15	2.80 2.30



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