

SURFACE MOUNT FAST SWITCHING DIODE

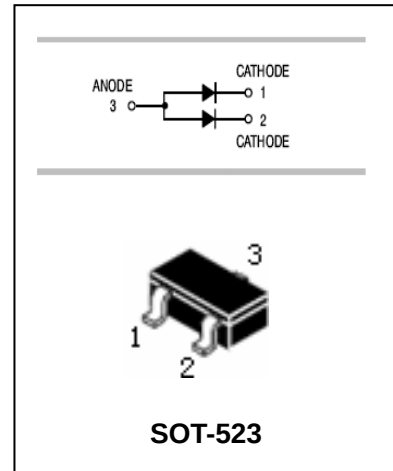
BAW56T

FEATURES

- Ultra-Small Surface Mount Package.
- Fast switching speed.
- For General Purpose Switching Applications.
- High Conductance.
- Also Available in Lead Free Version.



Lead-free



ORDERING INFORMATION

Type No.	Marking	Package Code
BAW56T	JD	SOT-523

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Units
V_{RRM}	Peak Repetitive Reverse Voltage	85	V
V_{RWM}	Working Peak Reverse Voltage	85	V
V_R	DC Blocking Voltage	85	V
$V_{R(RMS)}$	RMS Reverse Voltage	60	V
I_{FM}	Forward Continuous Current single diode Both diodes	155 75	mA
I_{FRM}	Repetitive Peak Forward Current	500	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current @t=1.0μs @t=1.0ms @t=1.0s	4 1 0.5	A
P_d	Power Dissipation	150	mW
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	833	°C/W
T_j, T_{stg}	Junction and Storage Temperature	-65 to +150	°C



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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=100\mu A$	85		V
Leakage current	I_R	$V_R=25V$		30	nA
		$V_R=75V$		2	μA
		$V_R=25V, T_j=150^\circ C$		60	μA
		$V_R=75V, T_j=150^\circ C$		100	μA
Forward voltage	V_F	$I_F=1mA$		0.715	V
		$I_F=10mA$		0.855	
		$I_F=50mA$		1	
		$I_F=150mA$		1.25	
Typical Total Capacitance	C_T	$V_R=0V, f=1MHz$		1.5	pF
Reverse recovery Time	t_{rr}	$I_F=I_R=10mA, I_{rr}=0.1 \cdot I_R, R_L=100\Omega$		4	ns

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

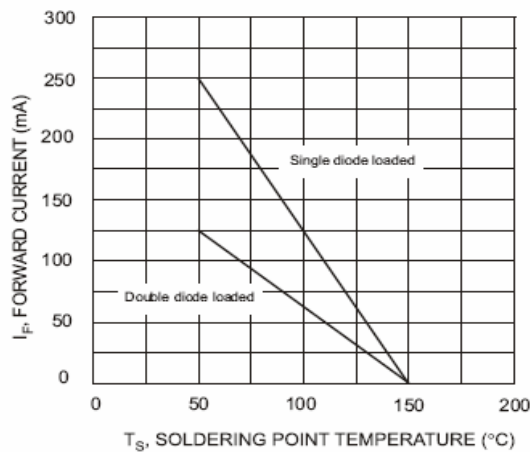


Fig. 1 Current Derating Curve

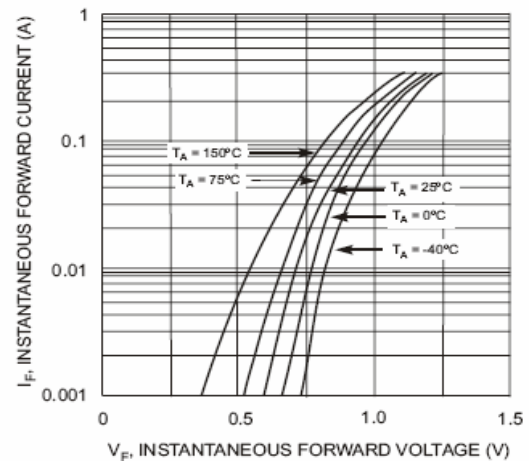


Fig. 2 Forward Characteristics

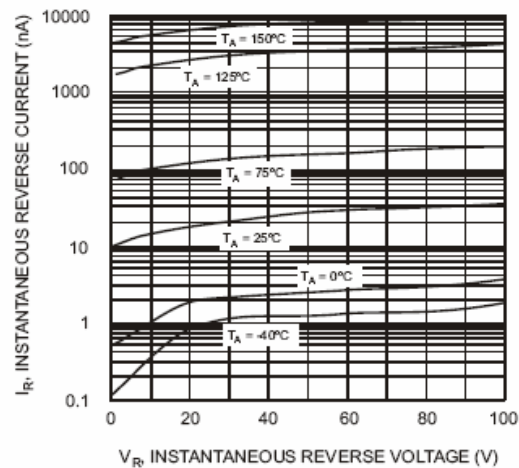


Fig. 3 Typical Reverse Characteristics

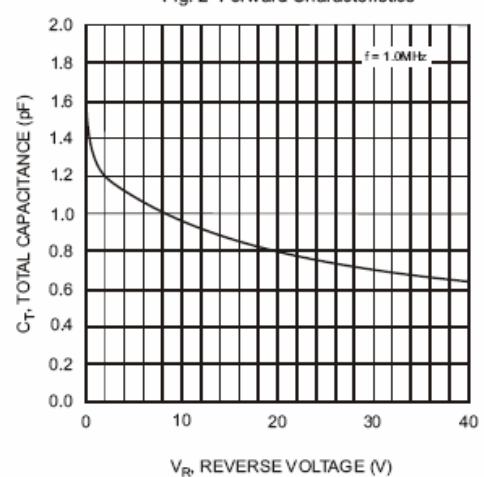


Fig. 4 Typical Capacitance vs. Reverse Voltage



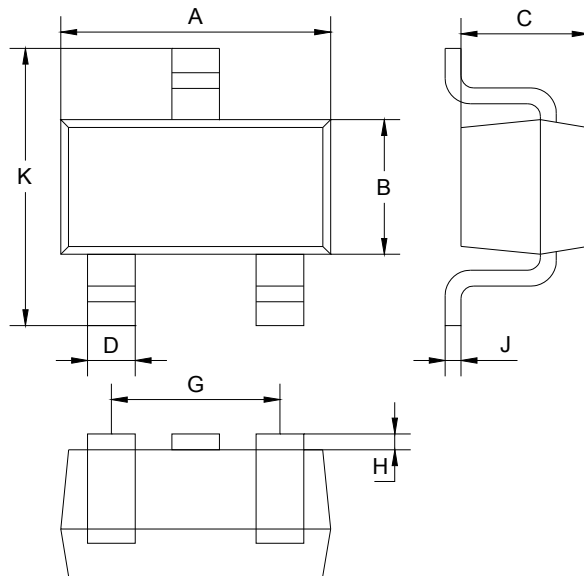
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PACKAGE OUTLINE

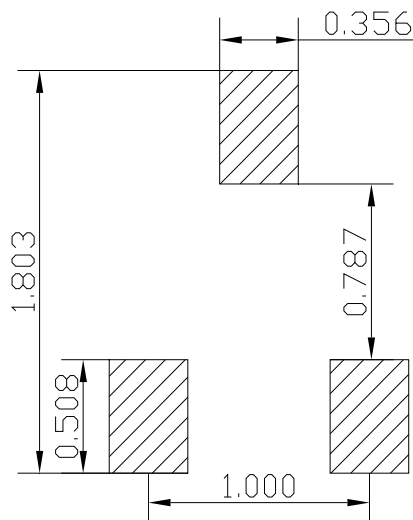
Plastic surface mounted package

SOT-523



SOT-523		
Dim	Min	Max
A	1.5	1.7
B	0.75	0.85
C	0.6	0.8
D	0.15	0.3
G	0.9	1.1
H	0.02	0.1
J	0.1Typical	
K	1.45	1.75
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
BAW56T	SOT-523	3000/Tape&Reel