

Features

- High Conductance
- Fast Switching Speed
- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- AEC-Q101 Qualified

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance(Note2):625°C/W Junction to Ambient

MCC Part Number	Repetitive Peak Reverse Voltage V_{RRM}	RMS Reverse Voltage $V_{R(RMS)}$	Reverse Voltage V_R
BAV23SWTHE3	250V	141V	200V

Working Peak Reverse Voltage	V_{RWM}	250V	
Repetitive Peak Forward Current	I_{FRM}	625mA	
Forward Continuous Current	I_{FM}	225mA	$T_A=25^\circ\text{C}$
Non-Repetitive Peak Forward Surge Current	I_{FSM}	1.7A	@ t = 10ms
Power Dissipation	P_D	200mW	

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

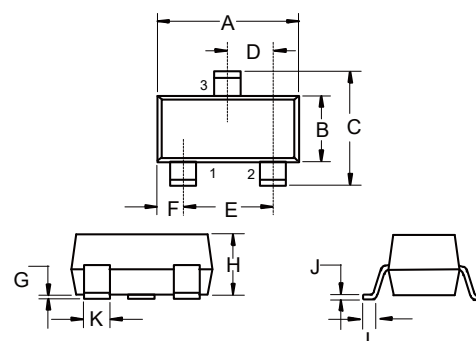
Note: 2. Part mounted on FR-4 board with recommended pad layout.

Internal Structure and Marking Code



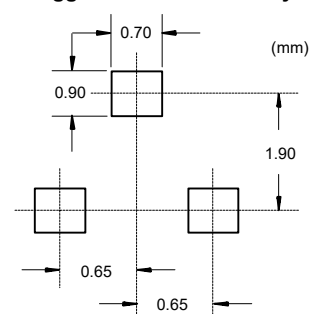
200mW Small Signal Diode

SOT-323



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.071	0.087	1.80	2.20	
B	0.045	0.053	1.15	1.35	
C	0.083	0.096	2.10	2.45	
D	0.026		0.65		TYP.
E	0.047	0.055	1.20	1.40	
F	0.012	0.016	0.30	0.40	
G	0.000	0.004	0.00	0.10	
H	0.035	0.044	0.90	1.10	
J	0.002	0.010	0.05	0.25	
K	0.006	0.016	0.15	0.40	
L	0.010	0.018	0.26	0.46	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Breakdown Voltage	V_{BR}	$I_R=100\mu A$	250			V
Forward Voltage	V_F	$I_F=100.0mA$			1.00	V
		$I_F=200.0mA$			1.25	
Peak Reverse voltage	I_R	$V_R=250V$			100	nA
Junction Capacitance	C_J	$V_R=0.0V, f=1.0MHz$		2.0		pF
Reverse Recovery Time	t_{rr}	$I_F=30mA, I_R=30mA$ $I_{rr}=0.1 \cdot I_R, R_L=100\Omega$			50.0	ns

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

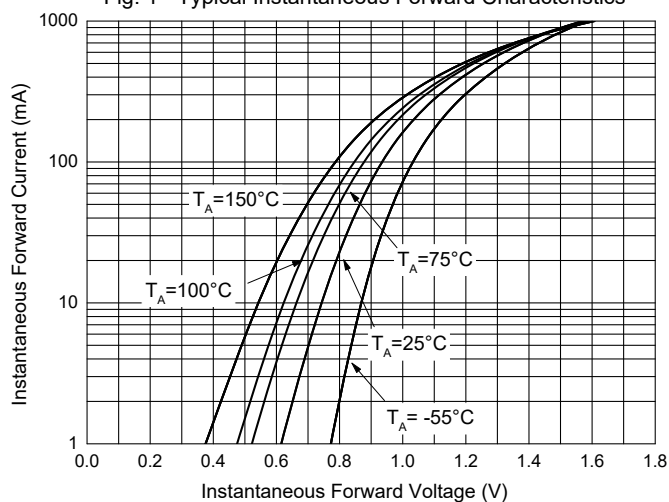


Fig. 2 - Typical Reverse Leakage Characteristics

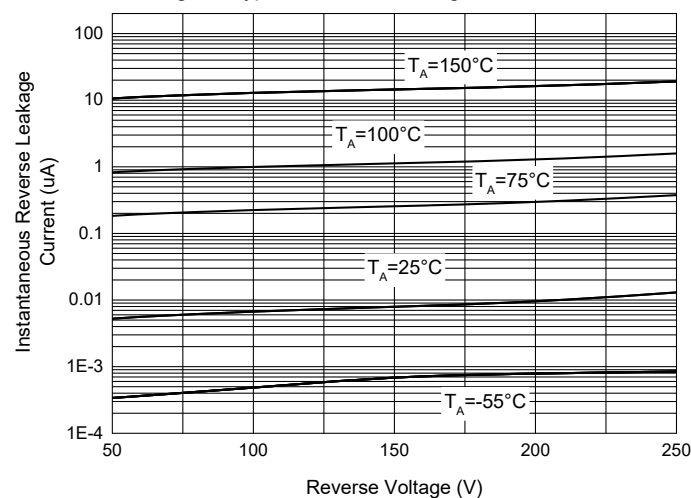


Fig. 3 - Capacitance Characteristics

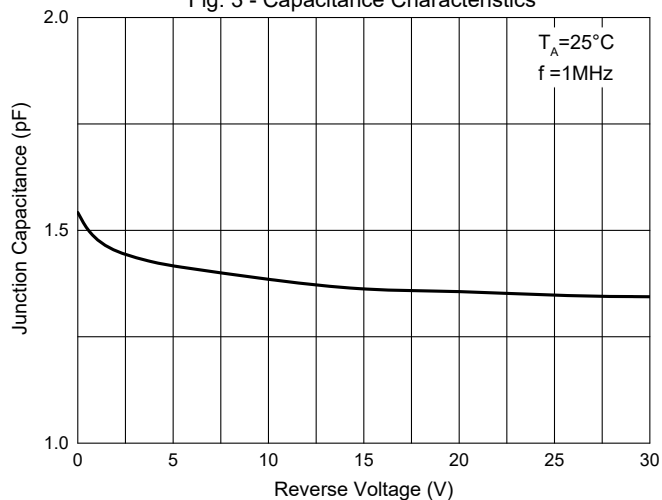
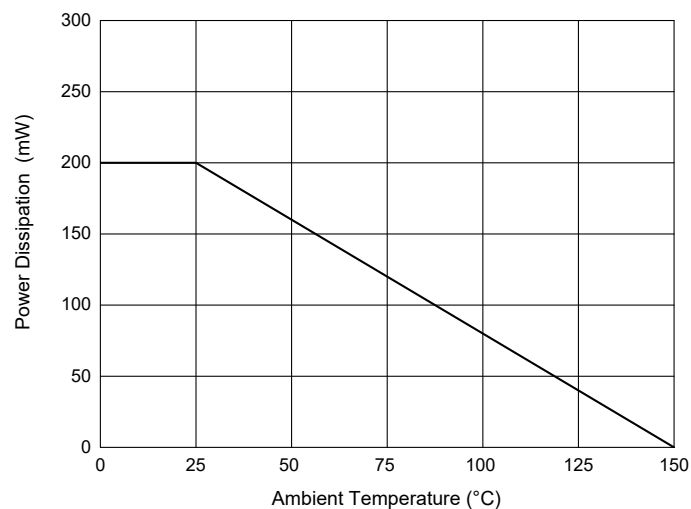


Fig. 4- Power Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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