

Features

- AEC-Q101 Qualified
- Small Outline Surface Mount Package
- Low Cost
- Low Current Leakage
- 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)

Maximum Ratings

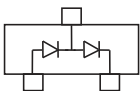
- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 625°C/W Junction to Ambient

MCC Part Number	Device Marking	Repetitive Peak Reverse Voltage V_{RRM}	RMS Reverse Voltage $V_{R(RMS)}$	Working Peak Reverse Voltage V_{RWM}
BAV199WTHE3	K52	85V	60V	85V

Forward Continuous Current	I_F	160mA	
Average Rectified Output Current	I_o	160mA	
Non-Repetitive Peak Forward Surge Current	I_{FSM}	4.0A 1.0A 0.5A	@1µs @1ms @1s
Power Dissipation	P_{TOT}	200mW	

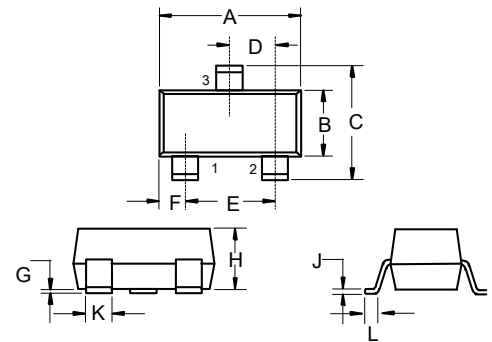
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure



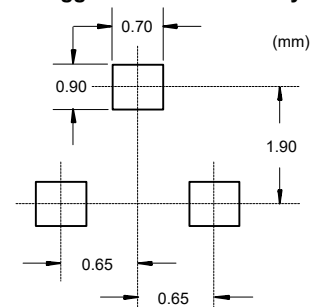
Dual Series Switching Diode

SOT-323



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

Minimum Reverse Breakdown Voltage	V_{BR}	85V	$I_R=100.0\mu A$
Maximum Forward Voltage	V_F	0.90V 1.00V 1.10V 1.250V	$I_{FM}=1.0mA$ $I_{FM}=10.0mA$ $I_{FM}=50.0mA$ $I_{FM}=150.0mA$
Maximum Leakage Current	I_R	5.0nA	$V_R=75V$
Typical Junction Capacitance	C_J	2.0pF	$V_R=0.0V, f=1.0MHz$
Maximum Reverse Recovery Time	t_{rr}	3.0 μs	

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

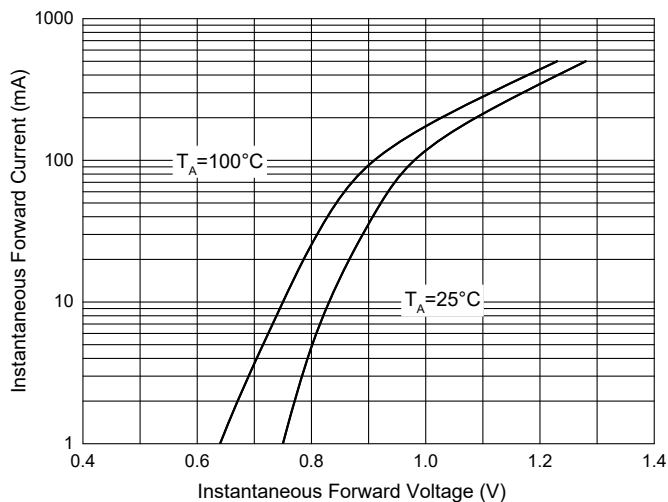


Fig. 2 - Typical Reverse Leakage Characteristics

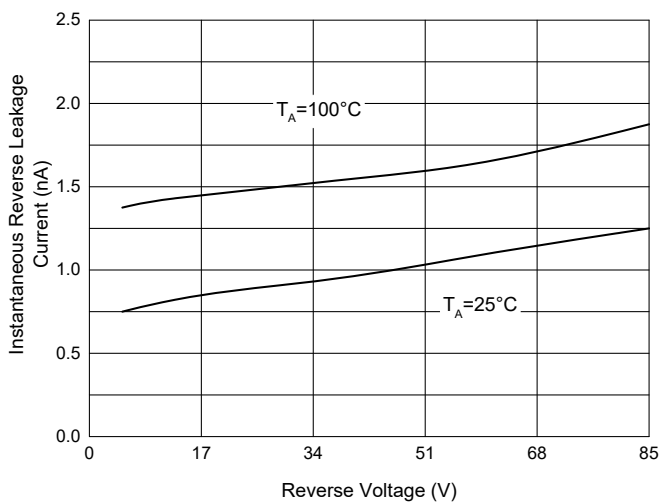
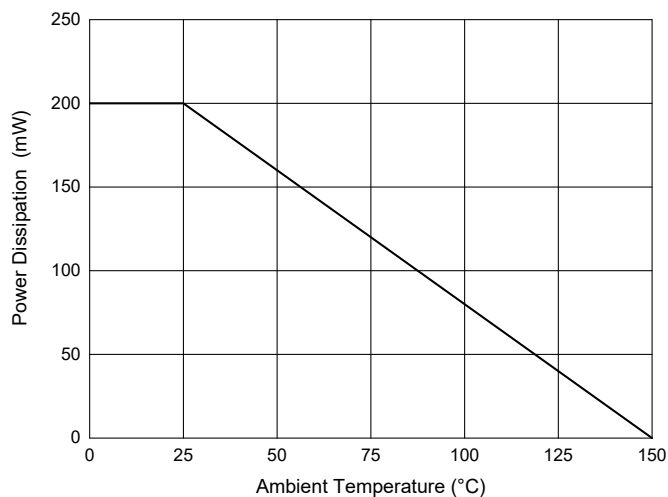


Fig. 3 - Power Derating Curve



Ordering Information

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

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