

Features

- Low Current Leakage
- Low Cost
- Small Outline Surface Mount Package
- 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 : -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance(Note2):625°C/W Junction to Ambient

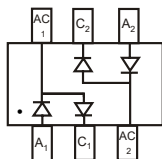
MCC Part Number	Repetitive Peak Reverse Voltage V_{RRM}	RMS Reverse Voltage $V_{R(RMS)}$	DC Blocking Voltage V_R
BAV99DW	75V	53V	75V

Working Peak Reverse Voltage	V_{RWM}	75V	
Average Rectified Output Current	I_o	150mA	
Forward Continuous Current	I_{FM}	300mA	
Non-Repetitive Peak Forward Surge Current	I_{FSM}	2.0A	t=8.3ms
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.

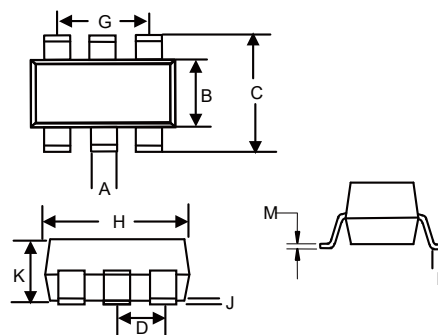
Note: 2. Part mounted on FR-4 board with recommended pad layout.

Internal Structure and Marking Code



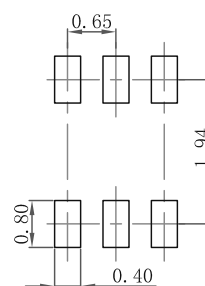
**200mW 75Volt
Plastic-Encapsulate
Diode**

SOT-363



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.006	0.014	0.15	0.35	
B	0.045	0.053	1.15	1.35	
C	0.079	0.096	2.00	2.45	
D	0.026		0.65 Nominal		
G	0.047	0.055	1.20	1.40	
H	0.071	0.087	1.80	2.20	
J	-----	0.004	-----	0.10	
K	0.031	0.037	0.80	0.95	
L	0.010	0.018	0.26	0.46	
M	0.003	0.006	0.08	0.15	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Voltage	V_R	$I_R=100\mu A$	75			V
Forward Voltage	V_F	$I_F=1mA$			0.715	V
		$I_F=10mA$			0.855	V
		$I_F=50mA$			1.00	V
		$I_F=150mA$			1.25	V
Reverse Current	I_R	$V_R=20V$			0.025	μA
		$V_R=75V$			2.5	μA
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$		2		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10mA,$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$		4		ns

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

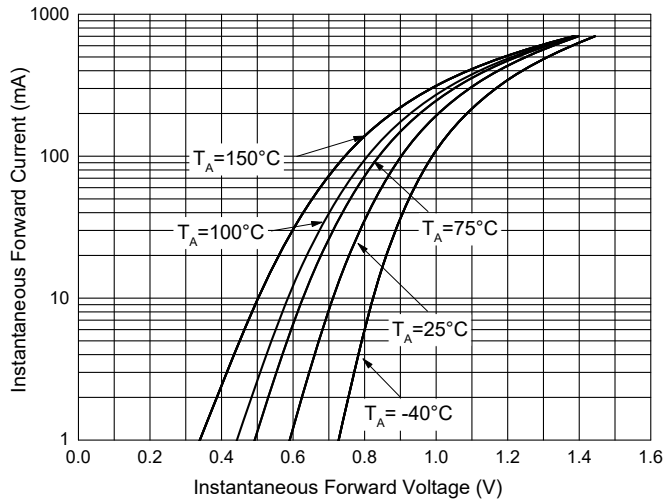


Fig. 2 - Typical Reverse Leakage Characteristics

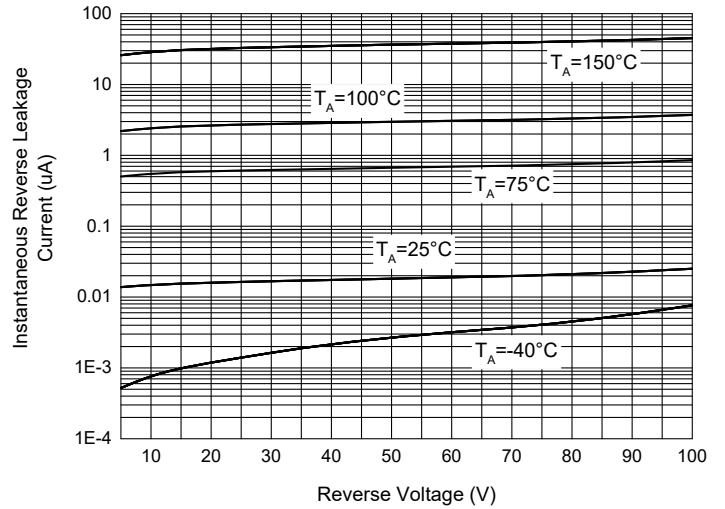


Fig. 3 - Capacitance Characteristics

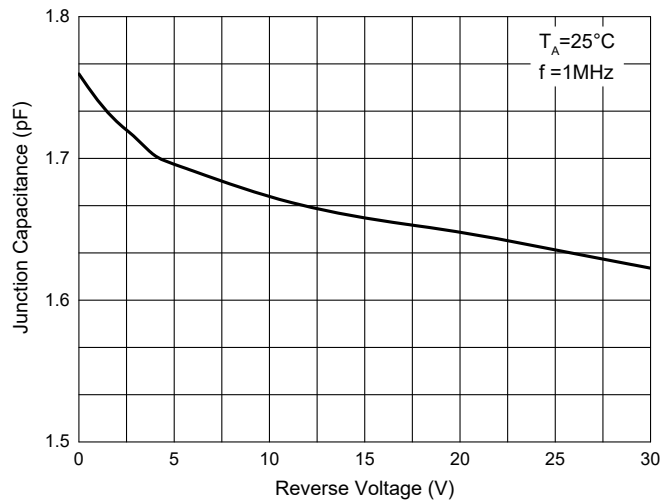
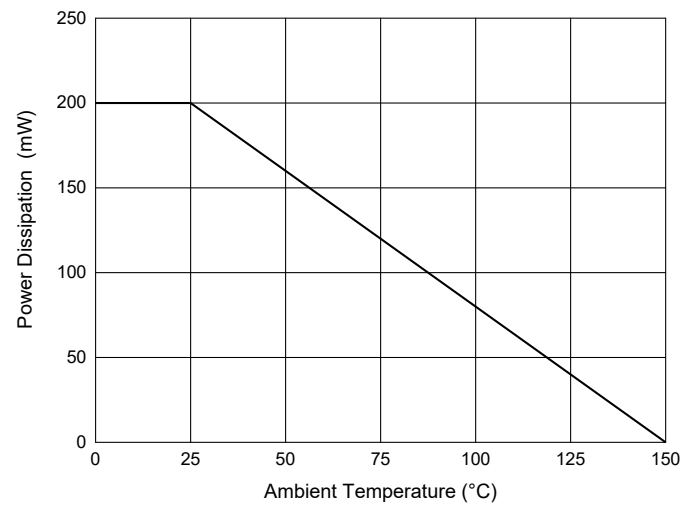


Fig. 4 - Power Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel
Part Number-13P	Tape&Reel: 10Kpcs/Reel

For packaging details, go to our website at <https://www.mccsemi.com/pdf/productpackaging/SOT-363%20Package.pdf>

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