

Features

- 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(Note2): 625°C/W Junction to Ambient

Zener Diode

Parameter	Symbol	Rating	Unit
Maximum Forward Voltage @ $I_F=10mA$	V_F	0.9	V

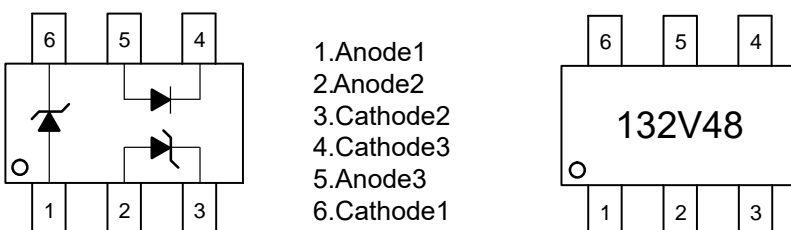
Switching Diode

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
DC Blocking Voltage	V_R	100	V
Average Rectified Forward Current	I_O	150	mA
Non-Repetitive Peak Forward Surge Current @ $t=1\mu s$	I_{FSM}	2	A

Total Device Dissipation

Parameter	Symbol	Rating	Unit
Total Device Dissipation	P_D	200	mW

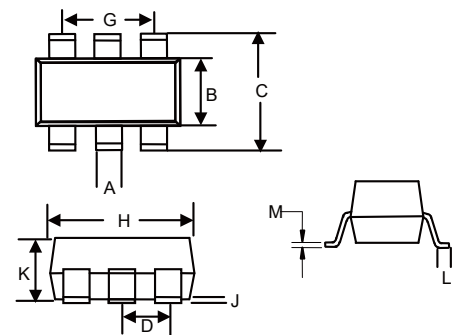
Internal Structure and Marking



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.

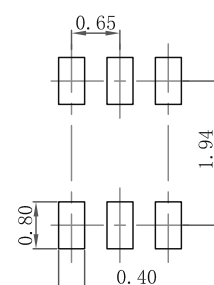
Switching Diode with Zener Diode

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	0.043	0.80	1.10	
L	0.010	0.018	0.26	0.46	
M	0.003	0.006	0.08	0.15	

Suggested Solder Pad Layout



Zener Diode---Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC Part Number	Zener Voltage			Maximum Zener Impedance				Reverse Current	
	V _Z @ I _{ZT}			Z _{ZT}	I _{ZT}	Z _{ZK}	I _{ZK}	I _R (Max)	V _R
	Min.(V)	Nom(V)	Max.(V)	Ω	mA	Ω	mA	μA	V
MMBD132V48	12.74	13	13.26	30	5	170	1	0.1	8.0

Switching Diode---Electrical Characteristics @ T_A=25°C Unless Otherwise Specified

Minimum Breakdown Voltage	V _{BR}	100V	I _R =100μA
Maximum Forward Voltage	V _F	0.715V 0.855V 1.000V 1.250V	I _F =1.0mA I _F =10.0mA I _F =50.0mA I _F =150.0mA
Maximum Peak Reverse voltage	I _R	25nA 1μA	V _R =20V V _R =75V
Typical Junction Capacitance	C _J	2.0pF	V _R =0.0V, f=1.0MHz
Typical Reverse Recovery Time	t _{rr}	4.0ns	I _F =10mA, I _R =10mA I _{tr} =0.1*IR, R _L =100Ω

Zener Diode---Curve Characteristics

Fig. 1 - Typical Zener Breakdown Characteristics

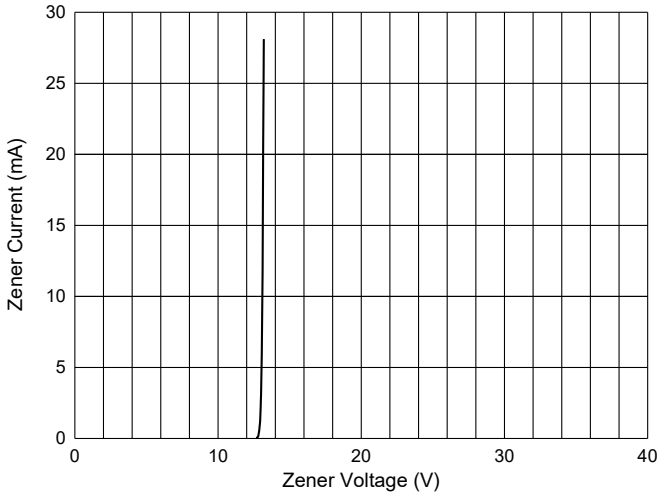
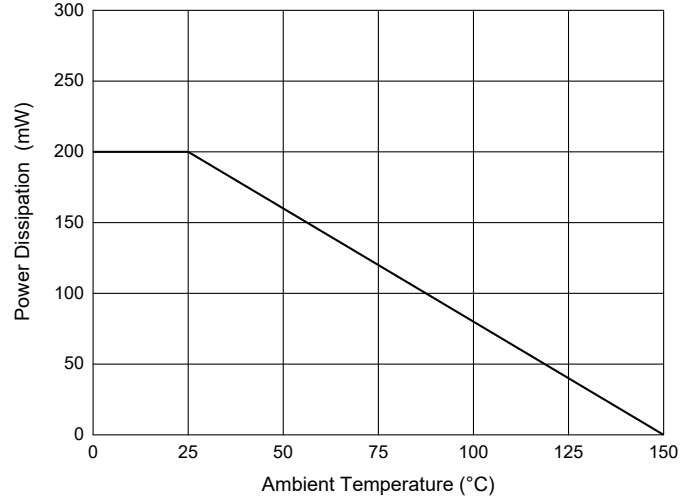


Fig. 2 - Power Derating Curve



Switching Diode---Curve Characteristics

Fig. 3 - Typical Instantaneous Forward Characteristics

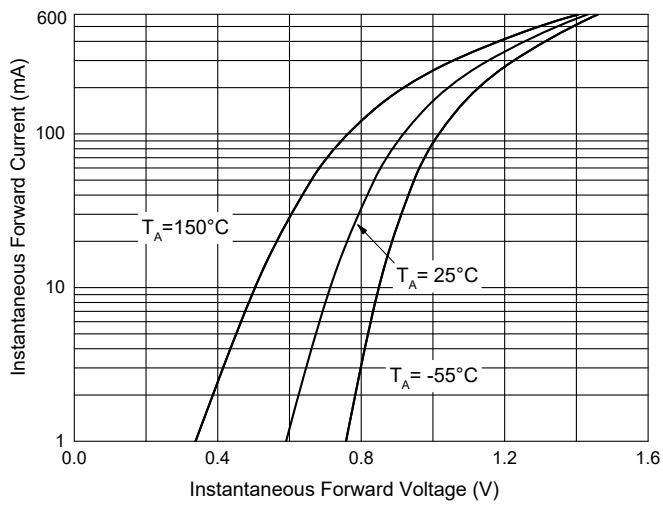


Fig. 4 - Typical Reverse Leakage Characteristics

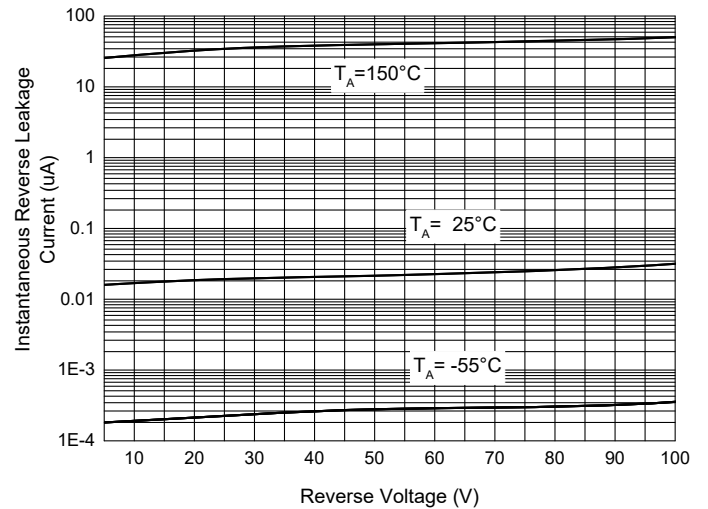
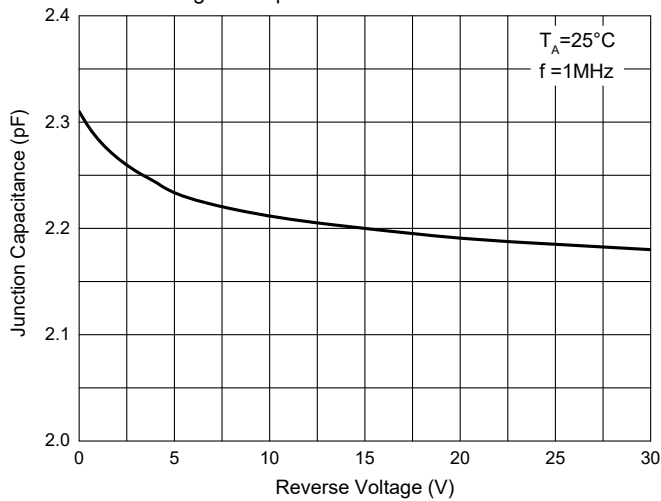


Fig. 5 - Capacitance Characteristics



Ordering Information

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

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