

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

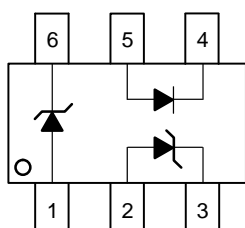
Switching Diode

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=1us	I _{FSM}	2	A

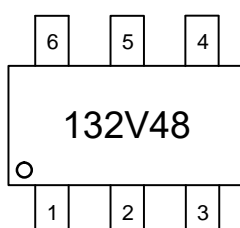
Total Device Dissipation

Parameter	Symbol	Rating	Unit
Total Device Dissipation	P _D	200	mW

Internal Structure and Marking



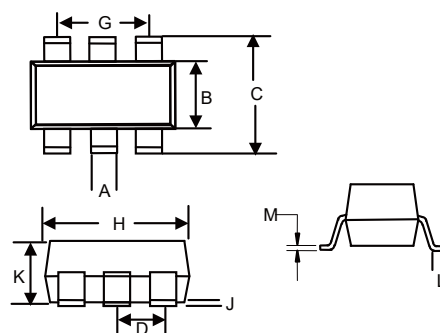
1. Anode1
2. Anode2
3. Cathode2
4. Cathode3
5. Anode3
6. Cathode1



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.

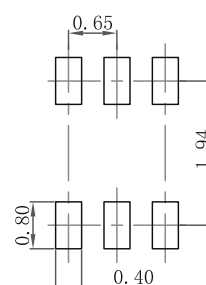
Switching Diode with Zener Diode

SOT-363



DIMENSIONS					
DIM	INCHES		MM		NOTE
	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}	$I_R(\text{Max})$	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 @ $T_A=25^\circ\text{C}$ Unless Otherwise Specified

Minimum Breakdown Voltage	V_{BR}	100V	$I_R=100\mu\text{A}$
Maximum Forward Voltage	V_F	0.715V 0.855V 1.000V 1.250V	$I_F=1.0\text{mA}$ $I_F=10.0\text{mA}$ $I_F=50.0\text{mA}$ $I_F=150.0\text{mA}$
Maximum Peak Reverse voltage	I_R	25nA 1 μA	$V_R=20\text{V}$ $V_R=75\text{V}$
Typical Junction Capacitance	C_J	2.0pF	$V_R=0.0\text{V}, f=1.0\text{MHz}$
Typical Reverse Recovery Time	t_{rr}	4.0ns	$I_F=10\text{mA}, I_R=10\text{mA}$ $I_{rr}=0.1 \cdot I_R, R_L=100\Omega$

Zener Diode---Curve Characteristics

Fig. 1 - Typical Zener Breakdown Characteristics

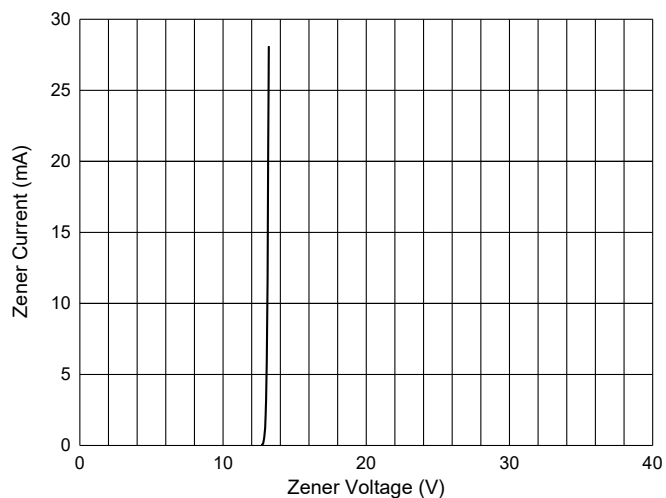
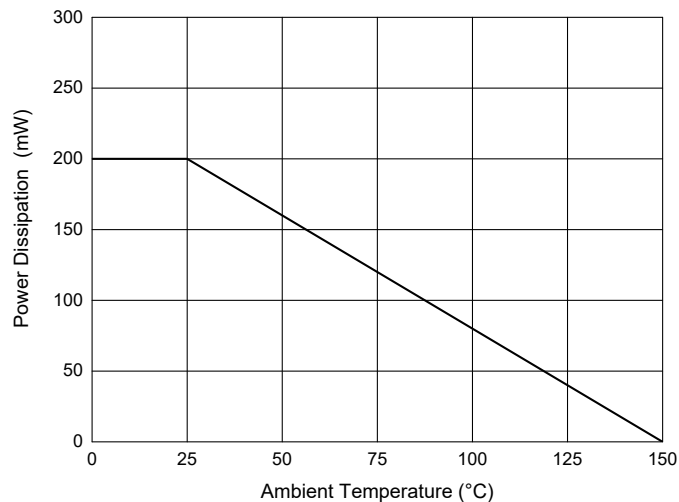


Fig. 2 - Power Derating Curve



Switching Diode---Curve Characteristics

Fig. 3 - Typical Instantaneous Forward Characteristics

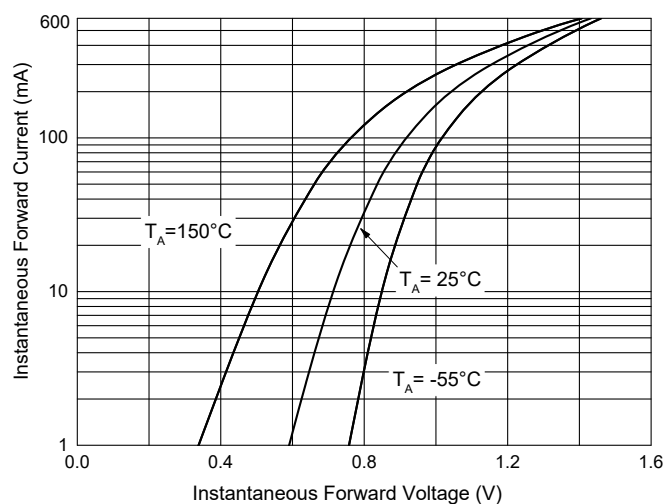


Fig. 4 - Typical Reverse Leakage Characteristics

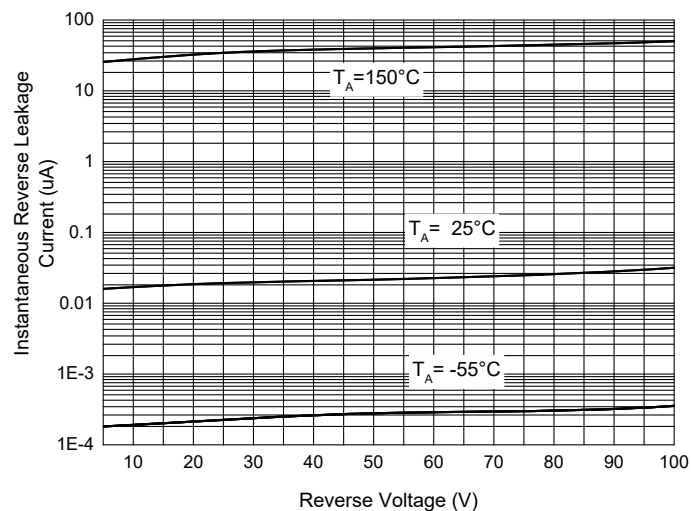
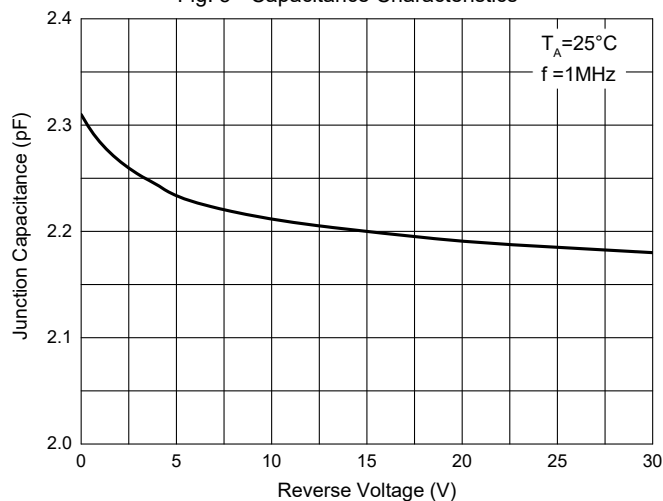


Fig. 5 - Capacitance Characteristics



Ordering Information

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

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