350mW 100 Volt Silicon Epitaxial Diode

Features

- Low Current Leakage
- 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 Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance:357°C/WJunction to Ambient

MCC Part Number	Device Marking	Peak Reverse Voltage V_{RM}	Reverse Voltage V_R
MMBD914	5D	100V	75V

Average Rectified Output Current	I_o	200mA	Resistive Load f > 50Hz
Peak Forward Surge Current	I_{FSM}	1.0A	t=1s,Non-Repetitive
Power Dissipation	P_{TOT}	350mW	

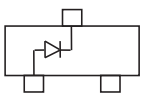
Electrical Characteristics @ 25°C Unless Otherwise Specified

Maximum Forward Voltage	V_F	0.855V	I_{FM}=10mA,T_j=25°C (Note2）
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	25nA	V_R=20V,T_j=25°C
Typical Junction Capacitance	C_J	2pF	V_R=0.0V,f=1.0MHz
Reverse Recovery Time	T_{rr}	4.0ns	I_F=10mA, V_R=6V, R_L=100Ω

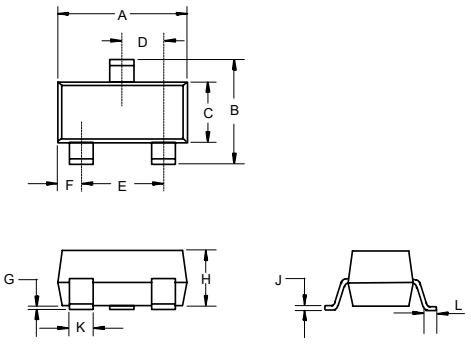
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

2. Pulse test: Pulse width 300 μsec, Duty cycle 2%

Internal Structure

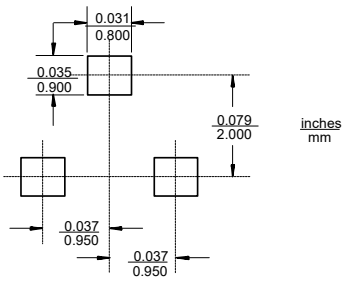


SOT-23



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.110	0.120	2.80	3.04	
B	0.083	0.104	2.10	2.64	
C	0.047	0.055	1.20	1.40	
D	0.034	0.041	0.85	1.05	
E	0.067	0.083	1.70	2.10	
F	0.018	0.024	0.45	0.60	
G	0.0004	0.006	0.01	0.15	
H	0.035	0.043	0.90	1.10	
J	0.003	0.007	0.08	0.18	
K	0.014	0.020	0.35	0.51	
L	0.007	0.020	0.20	0.50	

Solder Pad Layout



Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

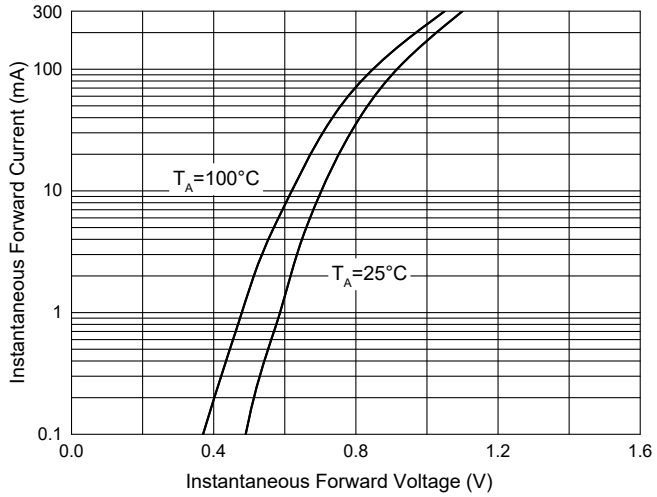


Fig. 2 - Typical Reverse Leakage Characteristics

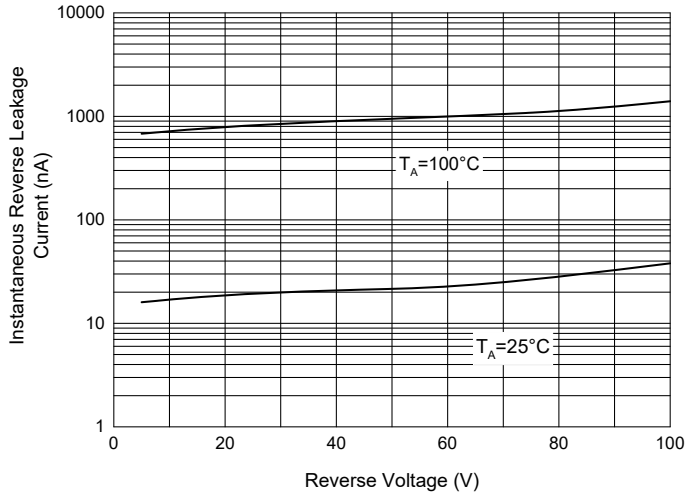
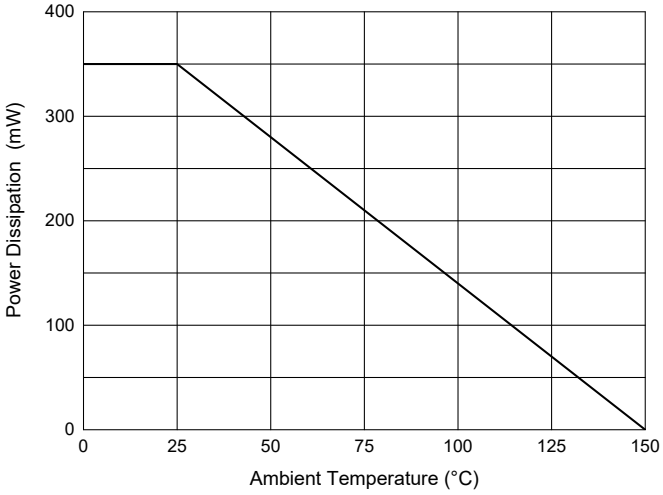


Fig. 3 - Power Derating Curve



Ordering Information

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

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