

## Features

- Low Current Leakage
- Small Outline Surface Mount Package
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- 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/W Junction to Ambient

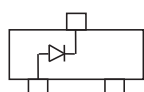
MCC Part Number	Device Marking	Peak Reverse Voltage $V_{RM}$	Reverse Voltage $V_R$
MMBD914	5D	100V	75V
Average Rectified Output Current	$I_o$	150mA	Resistive Load $f > 50\text{Hz}$
Peak Forward Surge Current	$I_{FSM}$	1.0A	$t=1\text{s}$ , Non-Repetitive
Power Dissipation	$P_{TOT}$	350mW	

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Maximum Forward Voltage	$V_F$	0.855V	$I_{FM}=10\text{mA}$ , $T_j=25^\circ\text{C}$ *
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	25nA	$V_R=20\text{V}$ , $T_j=25^\circ\text{C}$
Typical Junction Capacitance	$C_J$	2pF	$V_R=0.0\text{V}$ , $f=1.0\text{MHz}$
Reverse Recovery Time	$T_{rr}$	4.0ns	$I_F=10\text{mA}$ , $V_R=6\text{V}$ , $R_L=100\Omega$

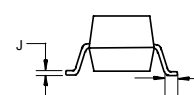
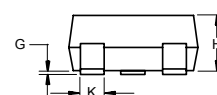
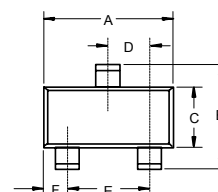
\*Pulse test: Pulse width 300  $\mu\text{s}$ , Duty cycle 2%

## Internal Structure



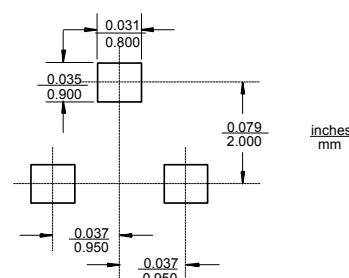
# 350mW 100 Volt Silicon Epitaxial Diode

## SOT-23



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	

## Suggested Solder Pad Layout



## Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

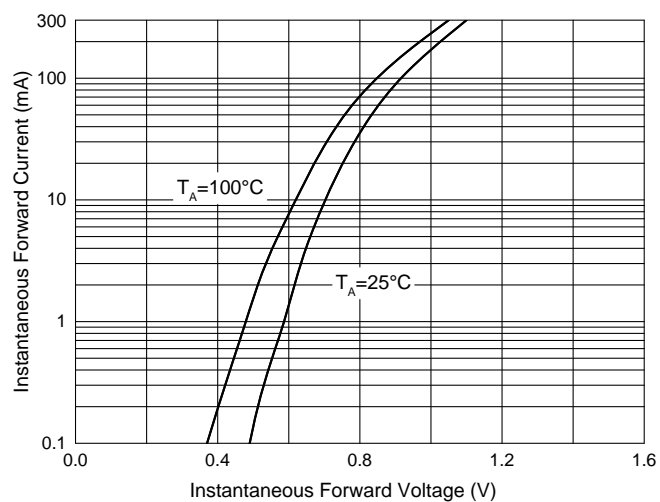


Fig. 2 - Typical Reverse Leakage Characteristics

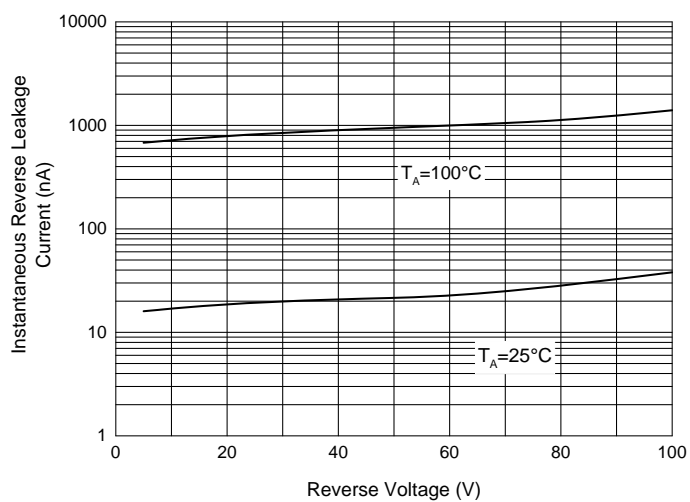
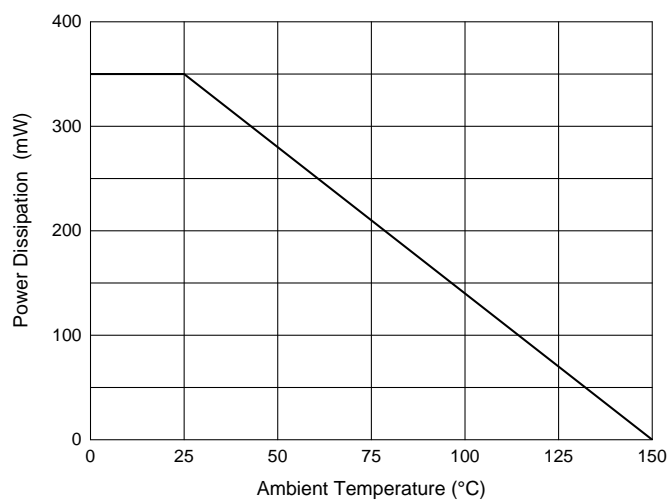


Fig. 3 - Power Derating Curve



## Ordering Information

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

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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