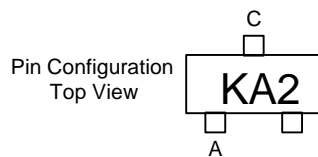


# MMBD4148

## Features

- Low Current Leakage
- Low Cost
- Small Outline Surface Mount Package



## 350mW 100 Volt Silicon Epitaxial Diode

## Maximum Ratings

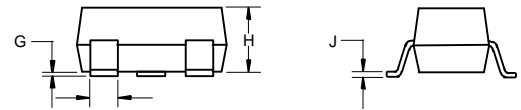
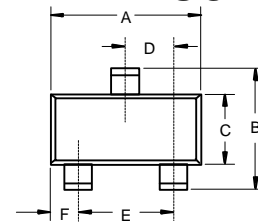
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 357K/W Junction To Ambient

Electrical Characteristics @ 25°C Unless Otherwise Specified

Reverse Voltage	$V_R$	75V	
Peak Reverse Voltage	$V_{RM}$	100V	
Average Rectified Current	$I_O$	150mA	Resistive Load $f > 50\text{Hz}$
Power Dissipation	$P_{TOT}$	350mW	
Junction Temperature	$T_J$	150°C	
Peak Forward Surge Current	$I_{FSM}$	1A	$t=1\text{s, Non-Repitive}$
Maximum Instantaneous Forward Voltage	$V_F$	.855V	$I_{FM} = 10\text{mA};$ $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	25nA	$T_J = 25^\circ\text{C}$ $V_R = 20\text{V}$
Typical Junction Capacitance	$C_J$	2pF	Measured at 1.0MHz, $V_R=0\text{V}$
Reverse Recovery Time	$T_{rr}$	4nS	$I_F=10\text{mA}$ $V_R = 6\text{V}$ $R_L=100\Omega$

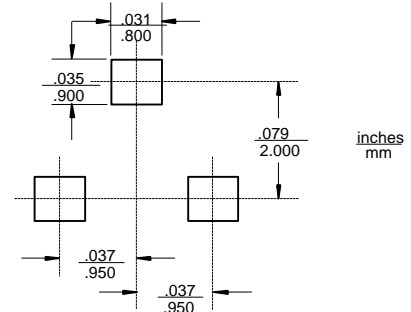
\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

## SOT-23



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.098	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

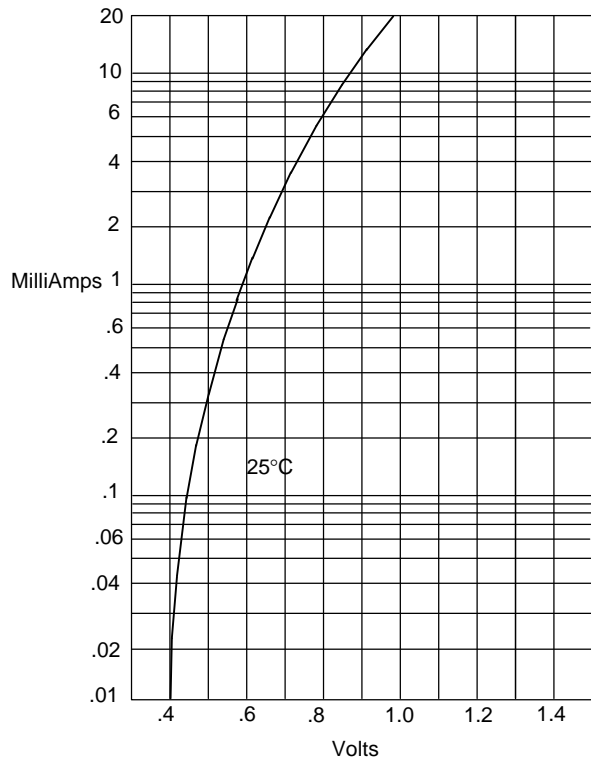
## Suggested Solder Pad Layout



# MMBD4148

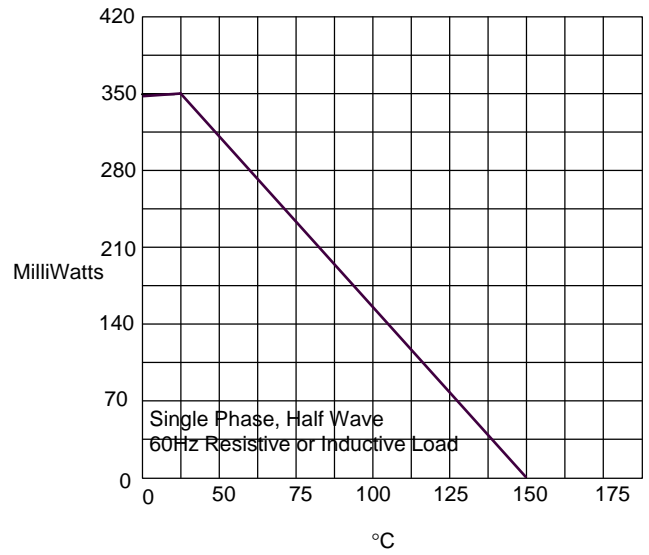


Figure 1  
Typical Forward Characteristics



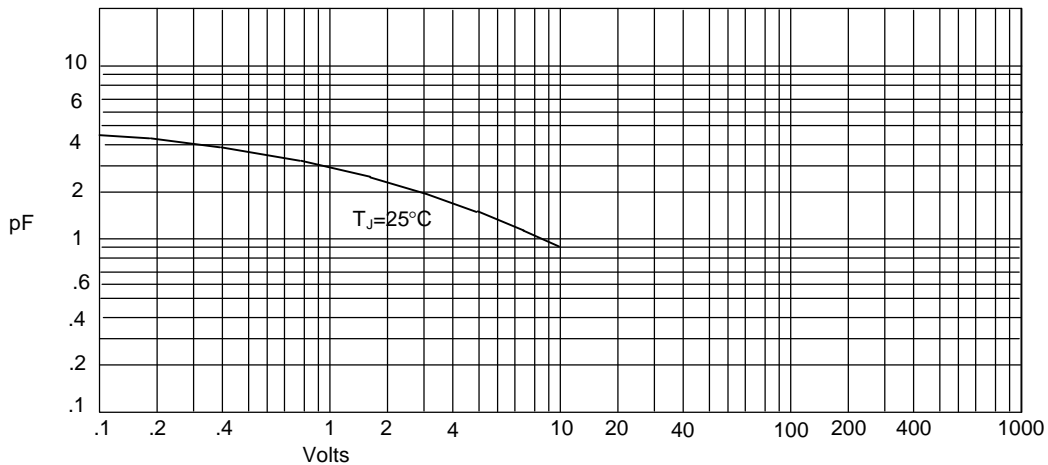
Instantaneous Forward Current - Amperes  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Admissible Power Dissipation - MilliWatts  
Ambient Temperature - °C

Figure 3  
Junction Capacitance

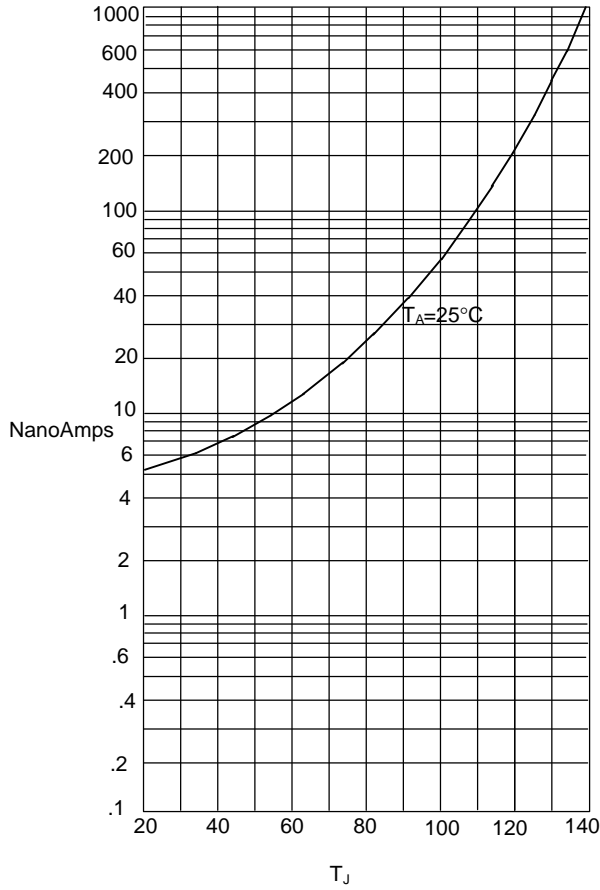


Junction Capacitance - pF  
Reverse Voltage - Volts

# MMBD4148

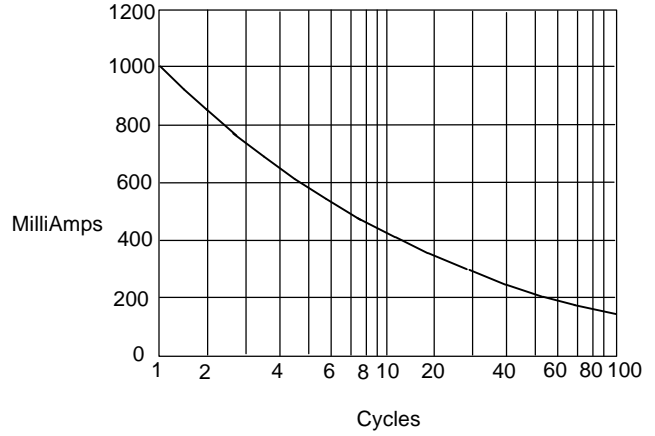


Figure 4  
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - NanoAmperes versus  
Junction Temperature - °C

Figure 5  
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles