



MMBD4448

Features

- Halogen free available upon request by adding suffix "-HF"
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)

Mechanical Data

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Polarity: See Diagram
- Marking: KA3

Maximum Ratings @ 25°C Unless Otherwise Specified

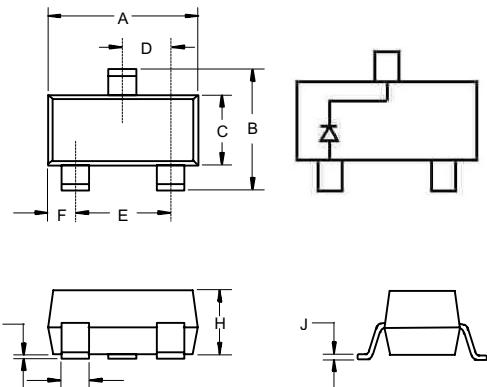
Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Volt.	V_{RM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}		
Working Peak Reverse Voltage	V_{RWM}	75	V
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current (Note 1)	I_{FM}	500	mA
Average Rectified Output Current	I_o	250	mA
Non-Repetitive Peak @ $t \leq 1.0s$	I_{FSM}	2	A
Forward Surge Current @ $t = 1.0\mu s$		4	A
Power Dissipation (Note 1)	P_d	350	mW
Thermal Resistance (Note 1)	R	357	K/W
Operation/Storage Temp. Range	T_j, T_{STG}	-55 to +150	°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

Characteristic	Symbol	Min	Max	Unit	Test Cond.
Maximum Forward Voltage Drop	V_{FM}	0.62	0.72	V	$I_F = 5.0\text{mA}$ $I_F = 10\text{mA}$ $I_F = 100\text{mA}$ $I_F = 150\text{mA}$
		-----	0.855		
		1			
		1.25			
Maximum Peak Reverse Current	I_{RM}	2.5	uA		$V_R = 75\text{V}$
		-----	50	uA	$V_R = 75\text{V} T_j = 150^\circ\text{C}$
		30	uA		$V_R = 25\text{V} T_j = 150^\circ\text{C}$
		25	nA		$V_R = 20\text{V}$
Junction Capacitance	C_j	-----	4	pF	$V_R = 0\text{V}, f = 1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	-----	4	ns	

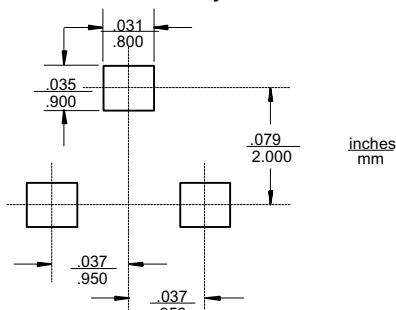
Surface Mount Switching Diode 350mW

SOT-23



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.104	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



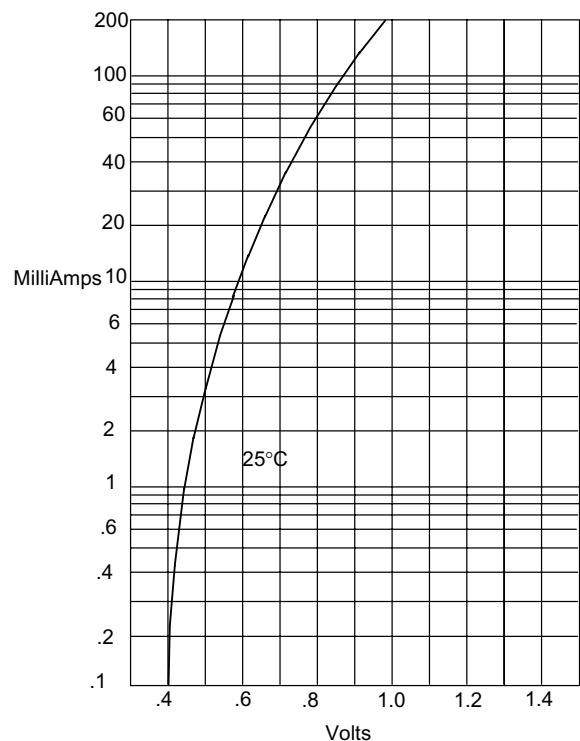
Note: 1. Valid provided that terminals are kept at ambient temperature
2. Trr Test Condition: $I_F = I_R = 10\text{mA}$, $I_{rr} = 0.1 \times I_R$, $R = 100\text{ OHM}$

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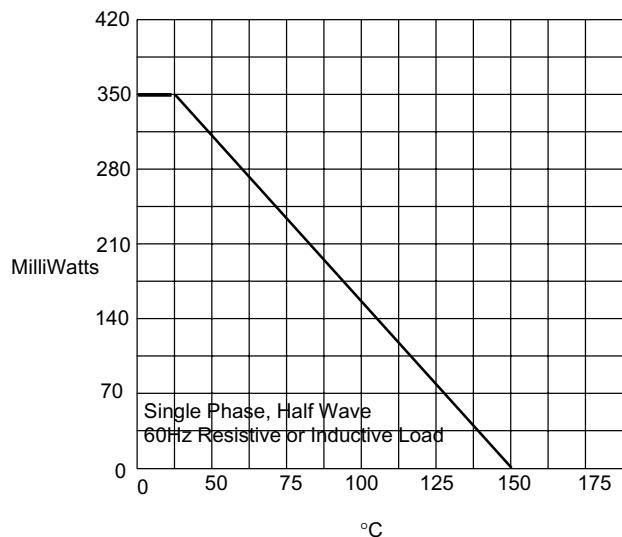
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Figure 1
Typical Forward Characteristics



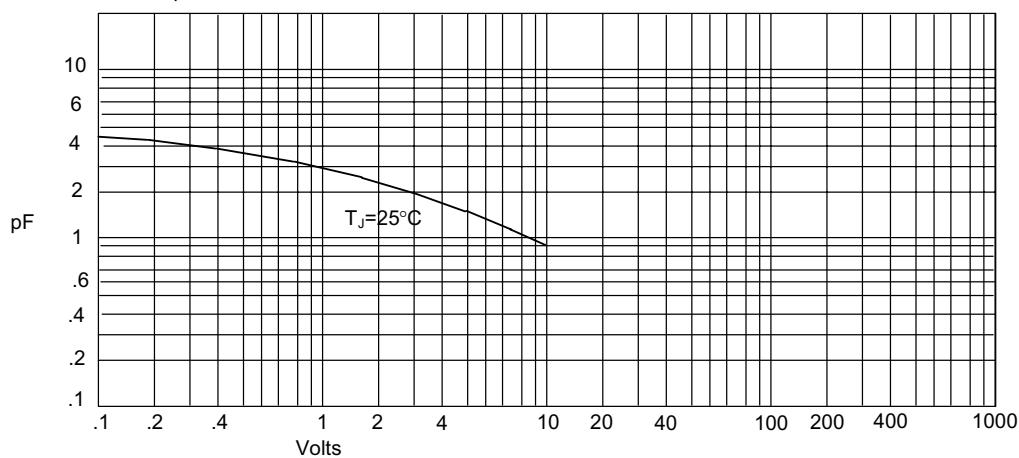
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



Admissible Power Dissipation - MilliWatts *versus*
Ambient Temperature - °C

Figure 3
Junction Capacitance

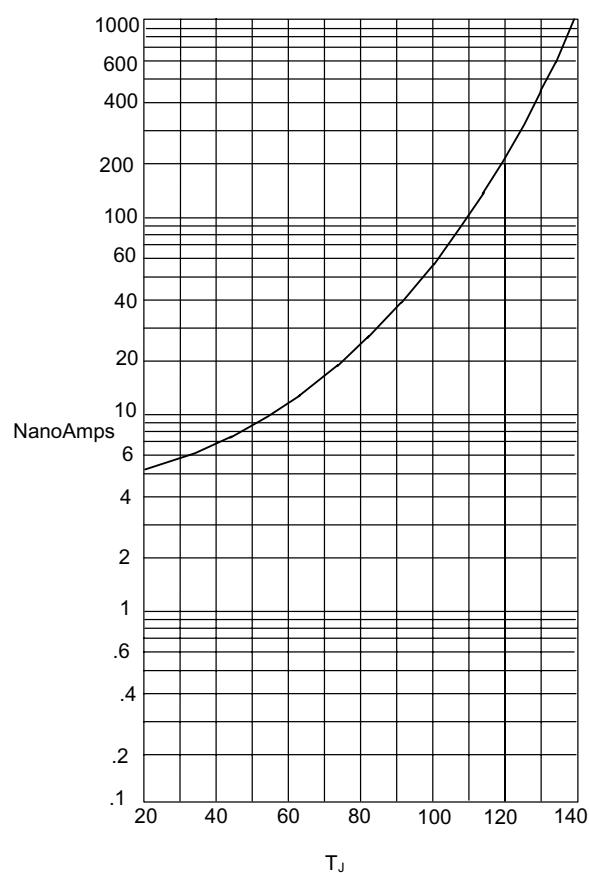


Junction Capacitance - pF *versus*
Reverse Voltage - Volts

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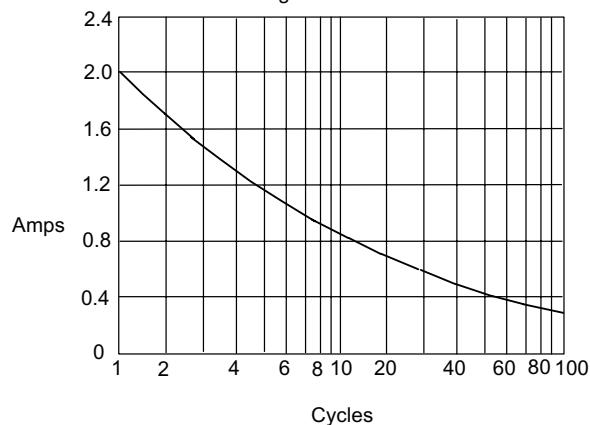
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Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - NanoAmperesversus
Junction Temperature - $^{\circ}\text{C}$

Figure 5
Peak Forward Surge Current



Peak Forward Surge Current - Amperesversus
Number Of Cycles At 60Hz - Cycles

$T_A=25^{\circ}\text{C}$



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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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