

MBRF4040SCT-MBRF40200SCT

40A SCHOTTKY BARRIER RECTIFIER



MBRF4040SCT-MBRF40200SCT

Features:

- Low power loss, high efficiency.
High surge capacity
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- Metal silicon junction, majority carrier conduction.
- High current Capability, low forward voltage drop.
- Guard ring for over voltage protection.

TO-220F



1 2 3



1. Anode 2. Cathode 3. Anode

Absolute Maximum Ratings (Ta=25°C unless otherwise noted)

Parameter	Symbol	MBRF 4040 SCT	MBRF 4045 SCT	MBRF 4050 SCT	MBRF 4060 SCT	MBRF 4080 SCT	MBRF 4090 SCT	MBRF 40100 SCT	MBRF 40150 SCT	MBRF 40200 SCT	Unit	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	45	50	60	80	90	100	150	200	V	
Maximum RMS Voltage	V_{RMS}	28	31.5	35	42	56	63	70	105	140		
Maximum DC Blocking Voltage	$V_{R(DC)}$	40	45	50	60	80	90	100	150	200		
Maximum Average Forward Current	$I_{F(AV)}$	40									A	
Peak Forward Surge Current: 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	275										
Maximum Forward Voltage at 15A per leg	V_F	0.7		0.75		0.85			0.95		V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_j=25^\circ\text{C}$	I_R									mA	
	$T_j=125^\circ\text{C}$											0.1
		20										
Maximum Operating Junction Temperature	T_j	150				175						°C
Storage Temperature	T_{stg}	-55~+150				-65~+175						
Typical Thermal Resistance	$R_{\theta JC}$	1.4									°C/W	

Typical Characteristics

RATING AND CHARACTERISTIC CURVES

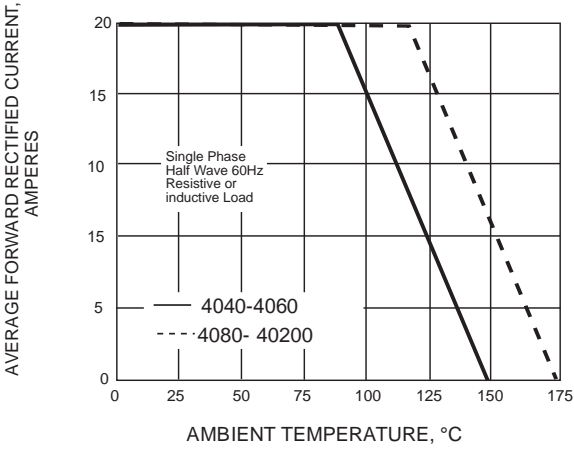


Fig.1 FORWARD CURRENT ERATING CURVE

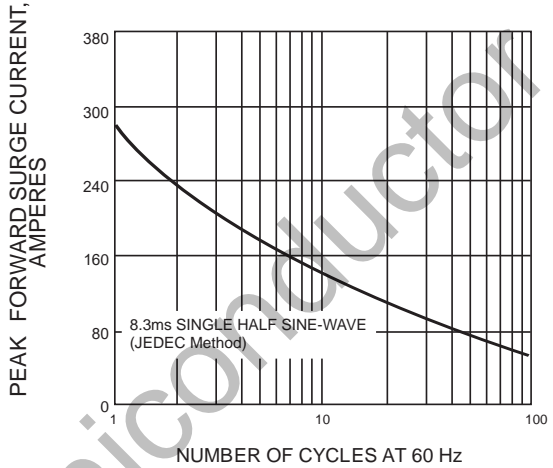


Fig.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

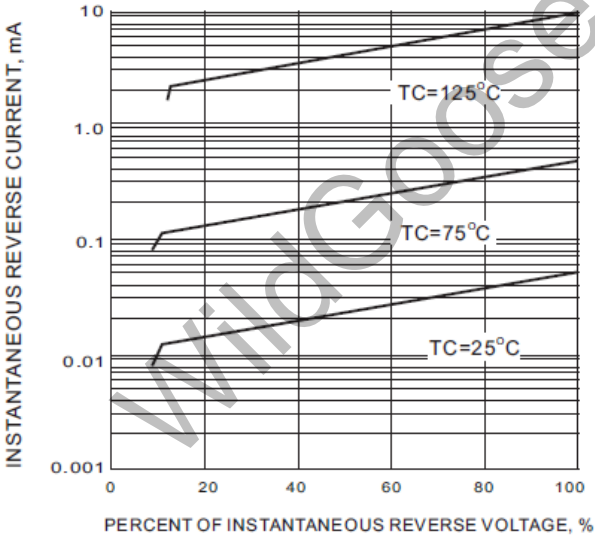


Fig.3 TYPICAL REVERSE CHARACTERISTIC

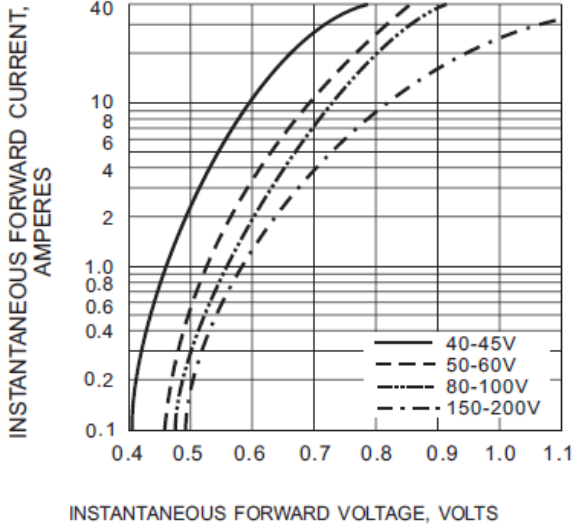


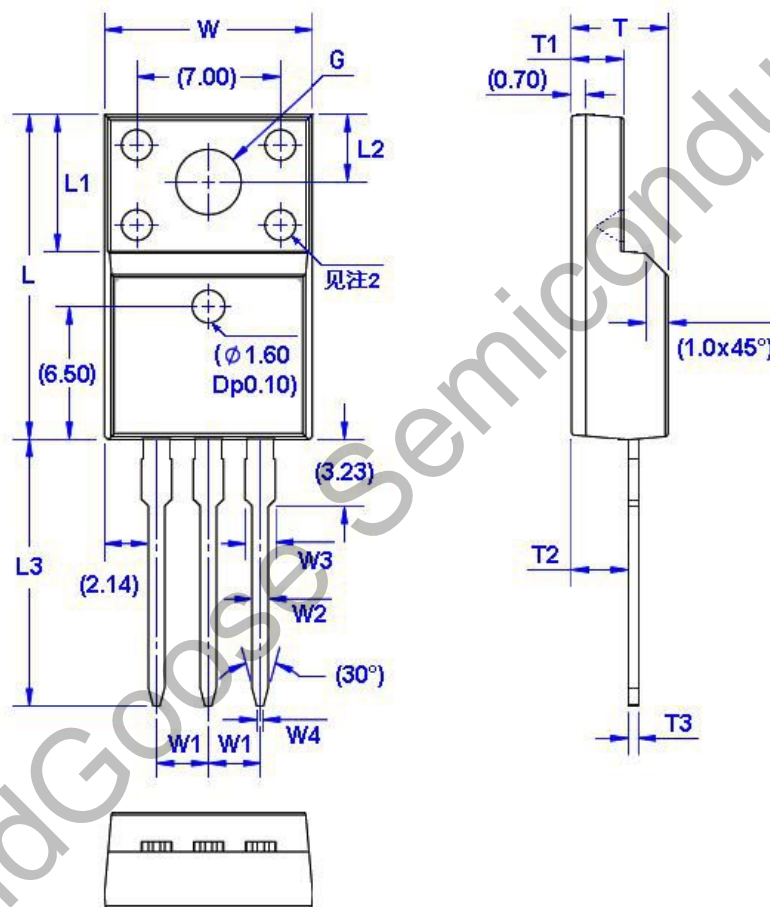
Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

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Package Dimension

TO-220F

Unit: mm



Symbol	Size		Symbol	Size		Symbol	Size		Symbol	Size	
	Min	Max		Min	Max		Min	Max		Min	Max
W	9.96	10.36	W4	0.25	0.45	L3	12.78	13.18	T3	0.45	0.60
W1	2.54 (TYP)		L	15.67	16.07	T	4.50	4.90	G(Φ)	3.08	3.28
W2	0.70	0.90	L1	6.48	6.88	T1	2.34	2.74			
W3	1.24	1.47	L2	3.20	3.40	T2	2.56	2.96			

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