



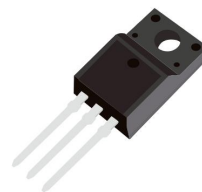
Schottky Diodes
Reverse Voltage-45v
Forward current-40A

Features

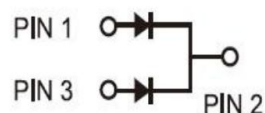
- Schottky chip
- Low forward voltage drop
- Ideal for surface mounted applications
- Low power loss, high efficiency
- Plastic Case Material has UL Flammability

Mechanical Data

- Package: TO-220F
- Terminals: Tin Plated leads, solderable per Mil-STD-750 Method 2026
- Polarity: As marked
- Molding compound meets UL 94 V-0 flammability rating, ROHS-compliant



TO-220F



Maximum Ratings (Ta=25℃ Unless otherwise specified)

Type Number	SYMBOL	MBRF40L45CT	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	45	V
Maximum RMS Voltage	V_{RMS}	31.5	V
Maximum DC Blocking Voltage	V_{DC}	45	V
Maximum Average Forward Rectified Current	$I_{O(AV)}$	40.0	A
Peak Forward Surge Current 8.3ms Single half-sine-wave superimposed on rated load(JEDEC Method) on rated	IFSM	250.0	A
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃		500.0	A
Current squared time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode	I^2t	259.3	A ² S
Maximum Forward Voltage at 20.0A DC	V_{FM}	0.55	V
Maximum Reverse Current TA = 25℃	IR	0.2	mA
at Rated DC Blocking Voltage TA = 100℃		50	mA
Typical Thermal Resistance Between junction and ambien Between Junction and Case	R_{QJA}	75.0	℃/W
	R_{QJC}	4.0	
Operating Junction Temperature Range	T_J	—55to+150	℃
Storage Temperature Range	T_{STG}	—55to+150	℃



FIG. 1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

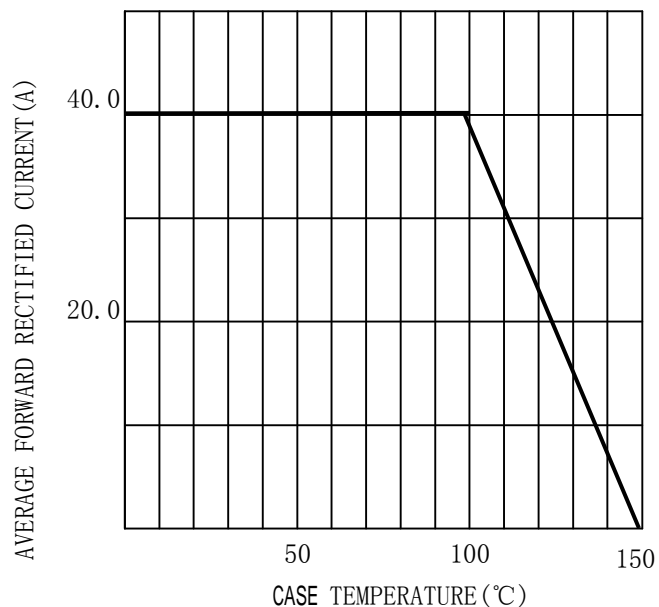


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

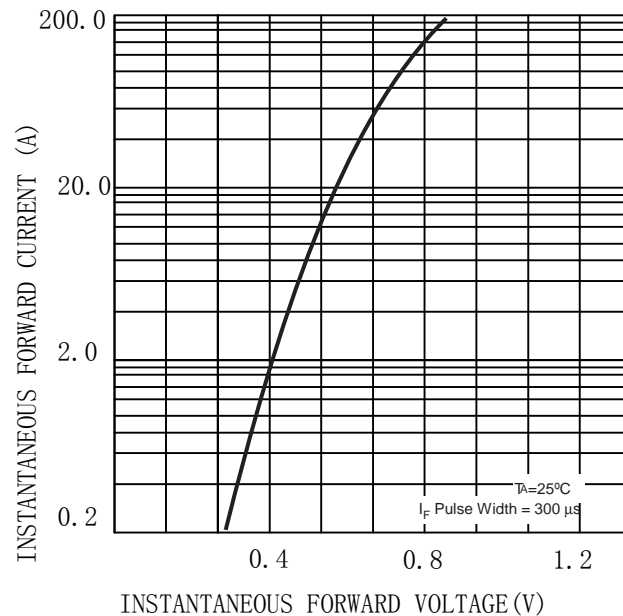


FIG. 3 MAXIMUM NON-REPEITIVE SURGE CURRENT

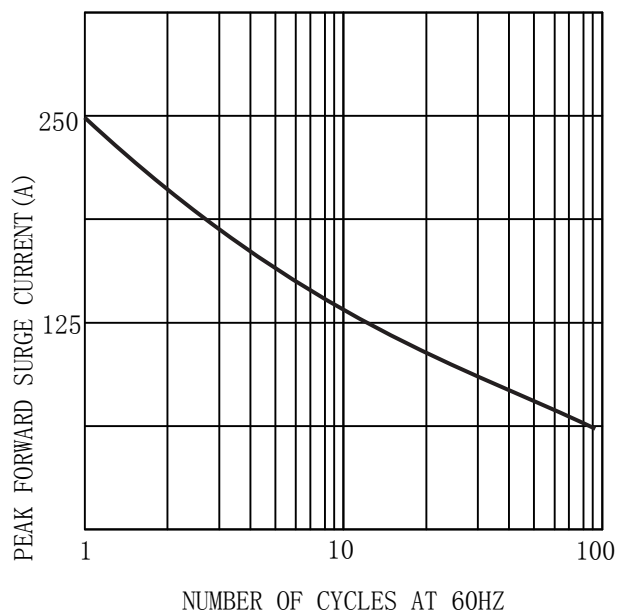
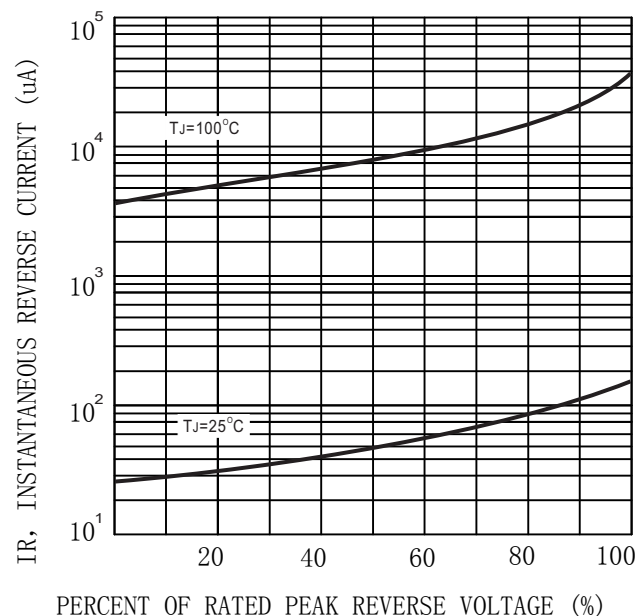


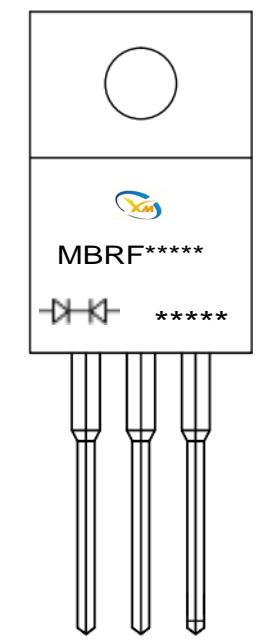
FIG. 4 TYPICAL REVERSE CHARACTERISTICS(per element)






MARKING INFORMATION

TO-220F/FCT



—|—|— = Polar line

 = Logo

***** = Date Code Marking

MBRF***** = Marking Code

Package Outline Dimensions millimeters

TO-220F/FCT					
DIM	INCHES		MM		NOTE
	min	max	min	max	
A	—	0.41	—	10.30	
B	0.61	0.64	15.60	16.20	
C	0.18	0.19	4.50	4.90	
D	0.26	0.28	6.60	7.00	
E	0.50	0.53	12.80	13.40	
a	0.10	0.10	2.45	2.65	
b	—	0.16	—	4.10	
c	0.03	0.04	0.72	0.92	
d	0.02	0.02	0.40	0.60	
e	—	0.15	—	3.80	Ø
f	0.09	0.11	2.40	2.80	



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