



## Schottky Diodes

Reverse Voltage- 45v

Forward current- -20A

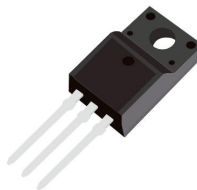
### Features

Schottky chip

Ideal for surface mounted applications

Low forward voltage drop, Low power loss, high efficiency

Plastic Case Material has UL Flammability



TO-220F

### Mechanical Data

Package: TO-220F

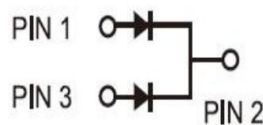
Terminals: Tin Plated leads, solderable per

Mil-STD-750 Method 2026

Polarity: As marked

Molding compound meets UL 94 V-0 flammability rating,

ROHS-compliant



### Maximum Ratings (Ta=25°C Unless otherwise)

Type Number	SYMBOL	MBRF2045CT	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 at $T_L = 100^\circ\text{C}$	$I_{O(AV)}$	20.0	A
Peak Forward Surge Current 8.3ms Single half-sine-wave superimposed on rated load (JEDEC Method) on rated	IFSM	130.0	A
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, $T_J = 25^\circ\text{C}$		260.0	A
Current squared time @ $1\text{ms} \leq t \leq 8.3\text{ms}$ $T_J = 25^\circ\text{C}$ , Rating of per diode	$I^2t$	70.13	$\text{A}^2\text{S}$
Maximum Forward Voltage at 10.0A DC	$V_{FM}$	0.65	V
Maximum Reverse Current $T_A = 25^\circ\text{C}$	IR	0.1	mA
at Rated DC Blocking Voltage $T_A = 100^\circ\text{C}$		20	mA
Typical Junction Capacitance	CJ	660	pF
Typical Thermal Resistance Between junction and ambient Between Junction and Case	$R_{QJa}$	75.0	$^\circ\text{C/W}$
	$R_{QJC}$	4.0	
Operating Junction Temperature Range	$T_J$	-55to+150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55to+150	$^\circ\text{C}$



FIG. 1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

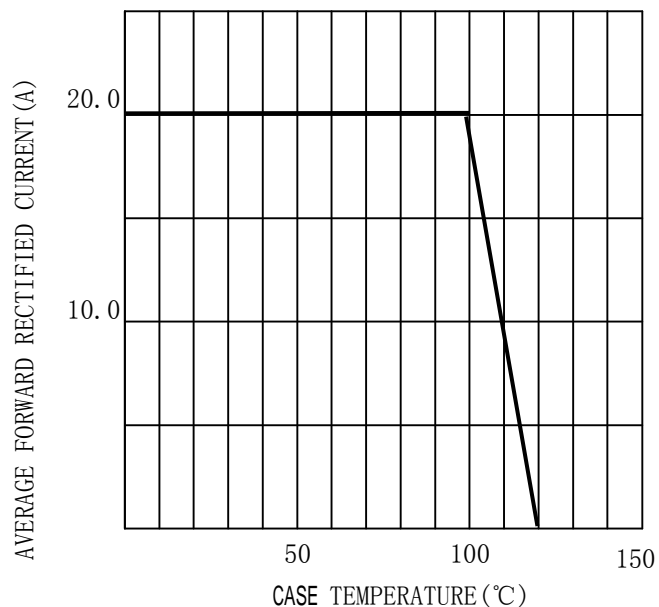


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

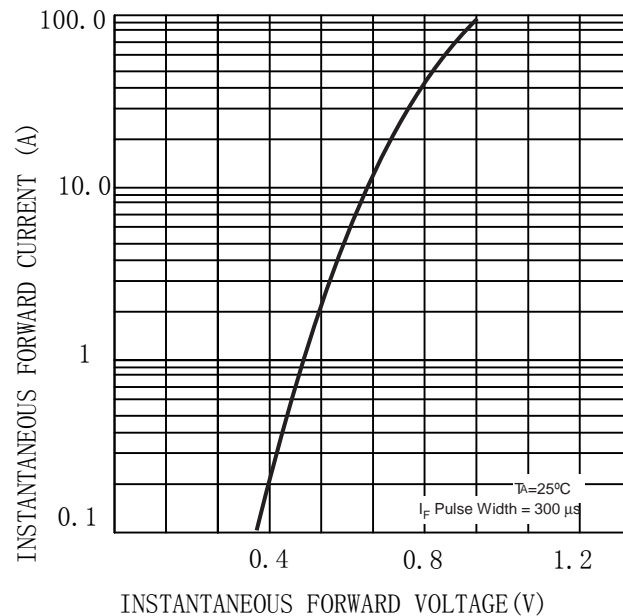


FIG. 3 MAXIMUM NON-REPEITIVE SURGE CURRENT

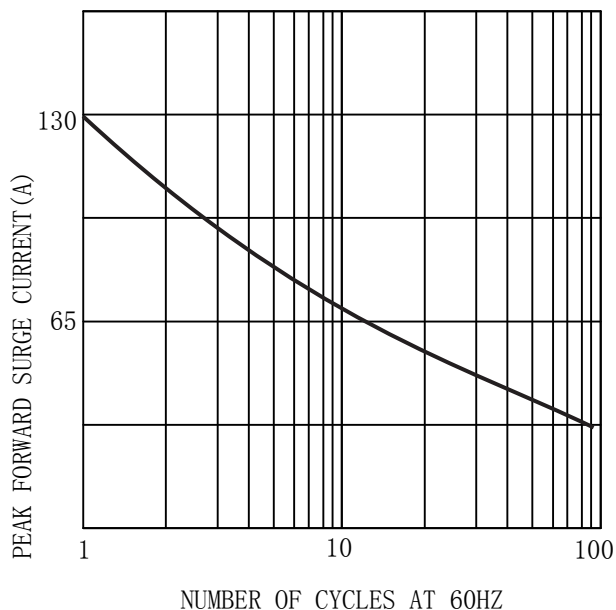
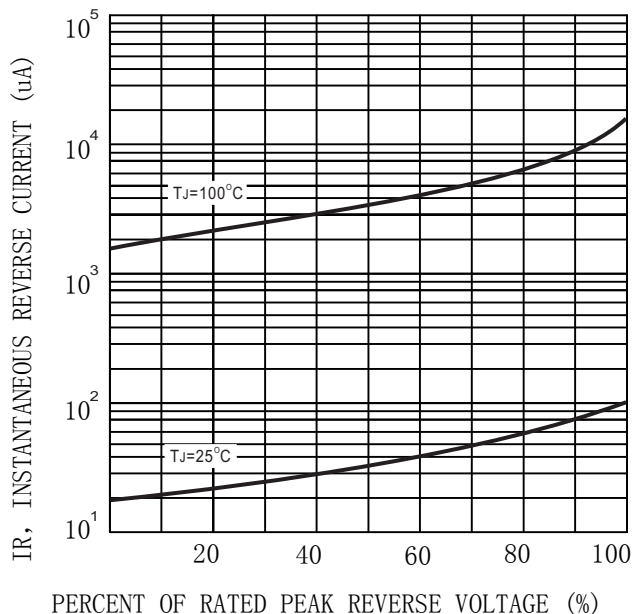


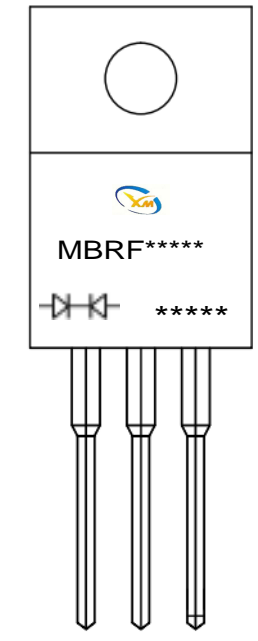
FIG. 4 TYPICAL REVERSE CHARACTERISTICS (per element)






## 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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