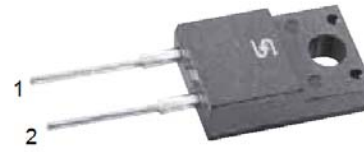


## Isolated Schottky Barrier Rectifiers

### FEATURES

- Low power loss, high efficiency
- Guardring for overvoltage protection
- High surge current capability
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



### MECHANICAL DATA

**Case:** ITO-220AC

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - halogen-free

**Terminal:** Matte tin plated leads, solderable per JESD22-B102

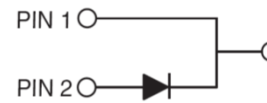
Meet JESD 201 class 1A whisker test

**Polarity:** As marked

**Mounting torque:** 5 in-lbs maximum

**Weight:** 1.7 g (approximately)

**ITO-220AC**



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)			
PARAMETER	SYMBOL	MBRF16H45	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	45	V
Maximum RMS voltage	V <sub>RMS</sub>	31	V
Maximum DC blocking voltage	V <sub>DC</sub>	45	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	16	A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	275	A
Peak repetitive reverse surge current (Note 1)	I <sub>RRM</sub>	1.0	A
Maximum instantaneous forward voltage (Note 2) I <sub>F</sub> = 16 A	V <sub>F</sub>	0.63	V
Maximum reverse current @ Rated V <sub>R</sub> T <sub>J</sub> =25 °C T <sub>J</sub> =125 °C	I <sub>R</sub>	0.5	mA
		50	
Typical thermal resistance	R <sub>θJC</sub>	3.2	°C/W
Operating temperature range In DC forward mode	T <sub>J</sub>	- 55 to +150	°C
		- 55 to +200	
Storage temperature range	T <sub>STG</sub>	- 55 to +150	°C

Note 1: t<sub>p</sub> = 2.0 μs, 1.0KHz

Note 2: Pulse test with PW=300μs, 1% duty cycle

ORDERING INFORMATION				
PART NO.	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
MBRF16H45	C0	Suffix "G"	ITO-220AC	50 / Tube

EXAMPLE				
PREFERRED P/N	PART NO.	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
MBRF16H45 C0	MBRF16H45	C0		
MBRF16H45 C0G	MBRF16H45	C0	G	Green compound

## RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

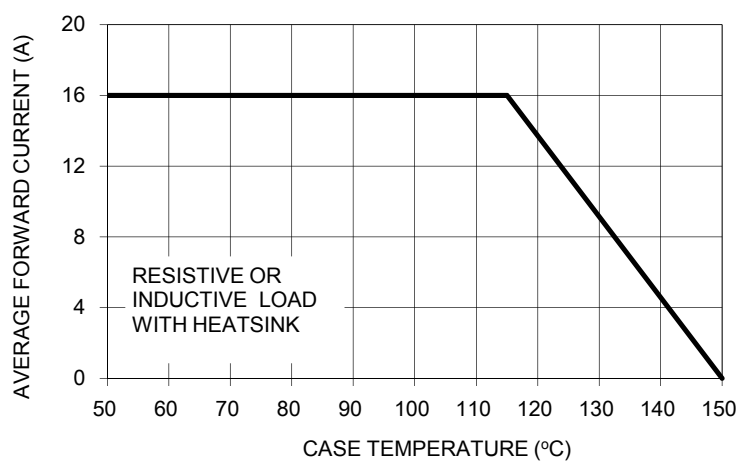


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

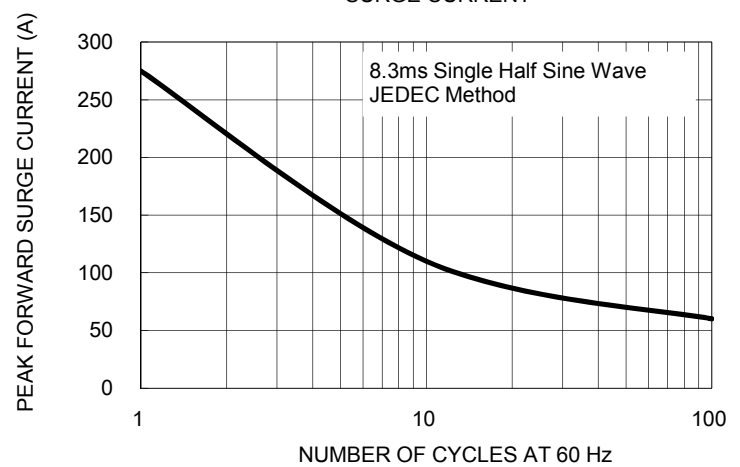


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

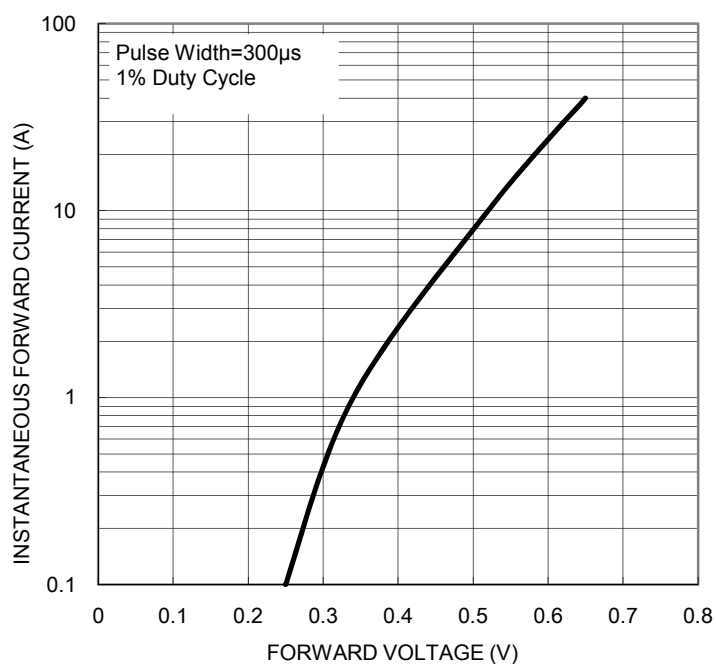


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

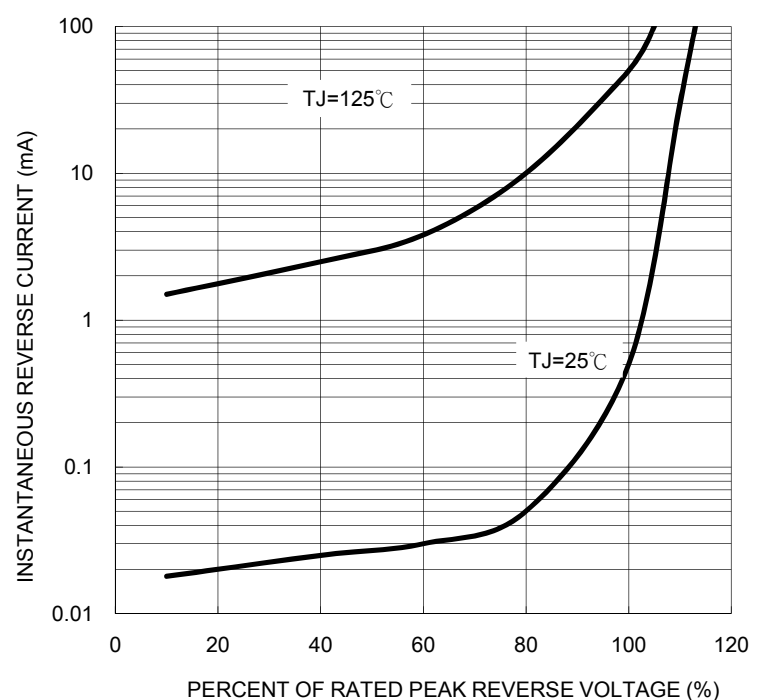
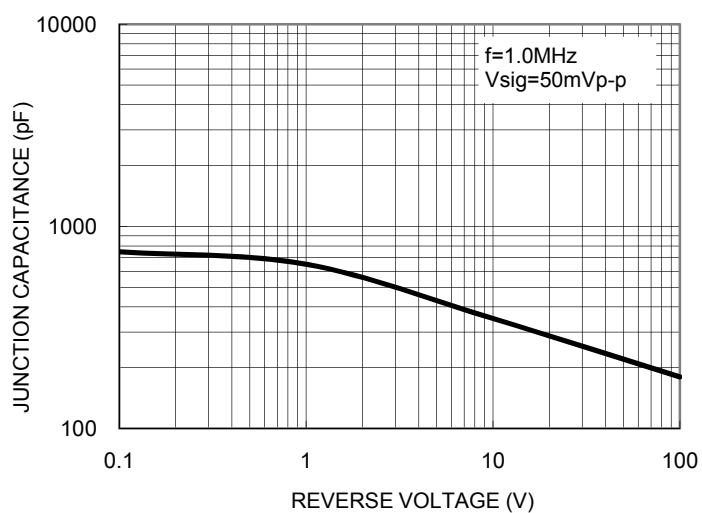
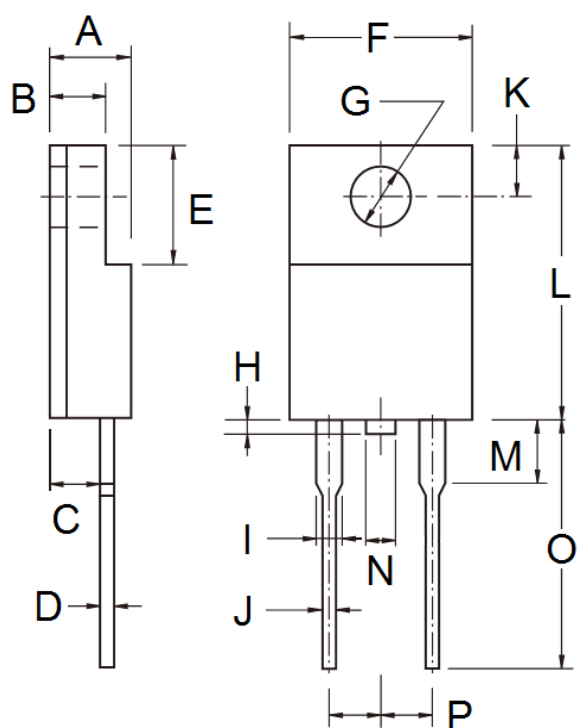


FIG. 5 TYPICAL JUNCTION CAPACITANCE



## PACKAGE OUTLINE DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	4.30	4.70	0.169	0.185
B	2.50	3.10	0.098	0.122
C	2.30	2.90	0.091	0.114
D	0.46	0.76	0.018	0.030
E	6.30	6.90	0.248	0.272
F	9.60	10.30	0.378	0.406
G	3.00	3.40	0.118	0.134
H	0.00	1.60	0.000	0.063
I	0.95	1.45	0.037	0.057
J	0.50	0.90	0.020	0.035
K	2.40	3.20	0.094	0.126
L	14.80	15.50	0.583	0.610
M	-	4.10	-	0.161
N	-	1.80	-	0.071
O	12.60	13.80	0.496	0.543
P	4.95	5.20	0.195	0.205

## MARKING DIAGRAM



P/N = Specific Device Code  
G = Green Compound  
YWW = Date Code  
F = Factory Code

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