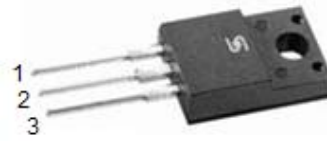


## Dual Common Cathode Schottky Rectifier

### 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



**ITO-220AB**



### MECHANICAL DATA

**Case:** ITO-220AB

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - green compound (halogen-free)

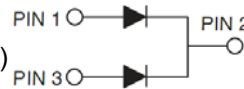
**Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test

**Polarity:** As marked

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

**Weight:** 1.7 g (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)							
PARAMETER	SYMBOL	MBRF 2045 CT-Y	MBRF 2060 CT-Y	MBRF 20100 CT-Y	MBRF 20150 CT-Y	MBRF 20200 CT-Y	UNIT
Marking code		MBRF 2045CT	MBRF 2060CT	MBRF 20100CT	MBRF 20150CT	MBRF 20200CT	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	45	60	100	150	200	V
Maximum RMS voltage	V <sub>RMS</sub>	31	42	70	105	140	V
Maximum DC blocking voltage	V <sub>DC</sub>	45	60	100	150	200	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	20					A
Peak repetitive forward current (Rated VR, Square wave, 20KHz)	I <sub>FRM</sub>	20					A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	150					A
Peak repetitive reverse surge current (Note 1)	I <sub>RRM</sub>	1	0.5				A
Maximum instantaneous forward voltage (Note 2) I <sub>F</sub> = 10 A, T <sub>J</sub> =25°C I <sub>F</sub> = 10 A, T <sub>J</sub> =125°C I <sub>F</sub> = 20 A, T <sub>J</sub> =25°C I <sub>F</sub> = 20 A, T <sub>J</sub> =125°C	V <sub>F</sub>	0.80 0.57 0.84 0.72	0.80 0.70 0.95 0.85	0.85 0.75 0.95 0.85	0.95 0.85 1.05 0.95		V
Maximum reverse current @ rated VR T <sub>J</sub> =25 °C T <sub>J</sub> =125 °C	I <sub>R</sub>	0.1					mA
		15	10	5	2		
Voltage rate of change (Rated V <sub>R</sub> )	dV/dt	10000					V/μs
Isolation voltage from terminals to heatsink with t=1.0 min	V <sub>AC</sub>	1500					V
Typical thermal resistance	R <sub>θJC</sub>	1.5		3.5			°C/W
Operating junction temperature range	T <sub>J</sub>	- 55 to +150					°C
Storage temperature range	T <sub>STG</sub>	- 55 to +150					°C

Note 1: tp = 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
MBRF20xxCT-Y (Note 1)	C0	Suffix "G"	ITO-220AB	50 / Tube

Note 1: "xx" defines voltage from 45V (MBRF2045CT-Y) to 200V (MBRF20200CT-Y)

EXAMPLE				
PREFERRED P/N	PART NO.	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
MBRF2060CT-Y C0	MBRF2060CT-Y	C0		
MBRF2060CT-Y C0G	MBRF2060CT-Y	C0	G	Green compound

**RATINGS AND CHARACTERISTICS CURVES**

(TA=25°C unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

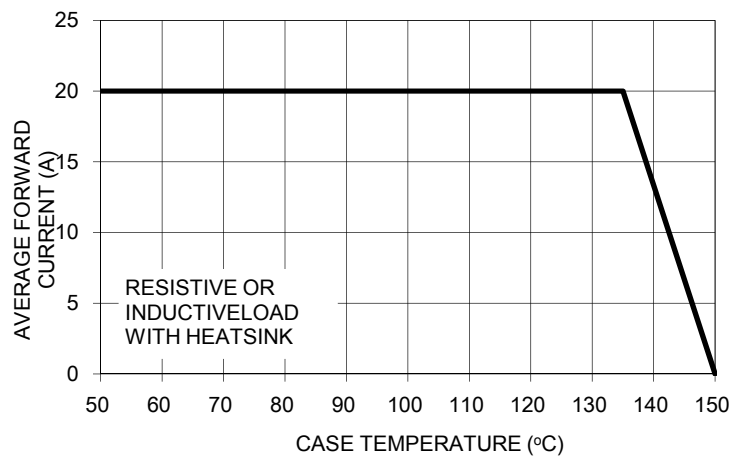


FIG.2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

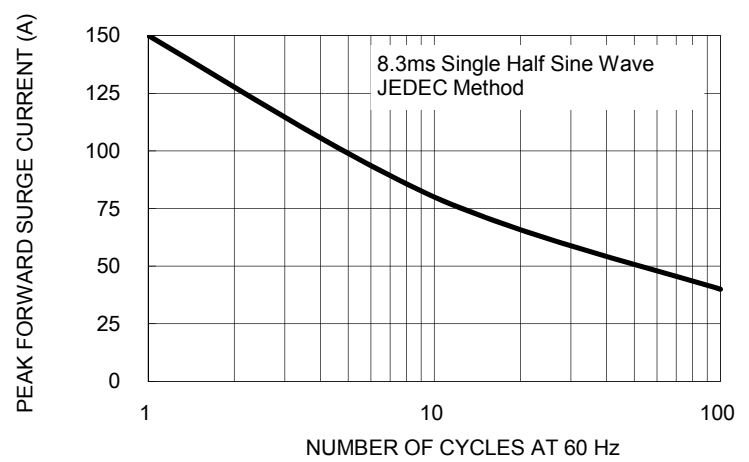


FIG.3 TYPICAL FORWARD CHARACTERISTICS PER LEG

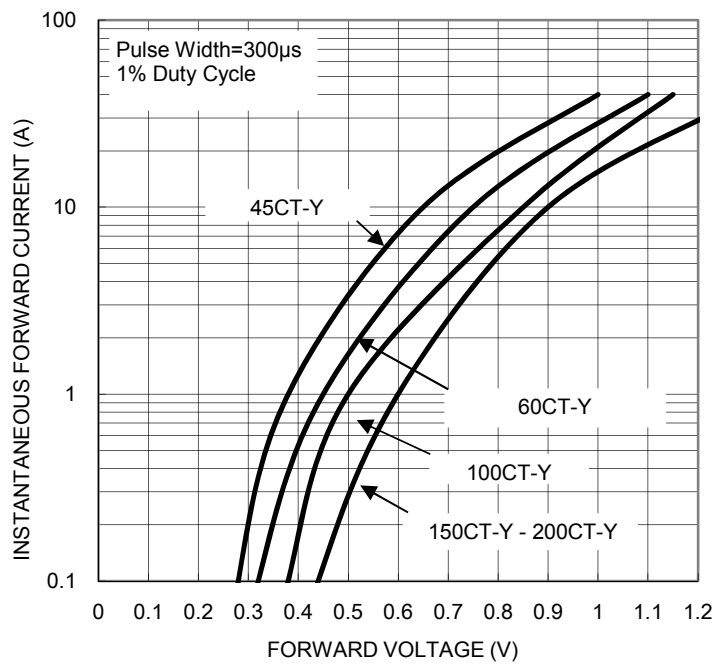
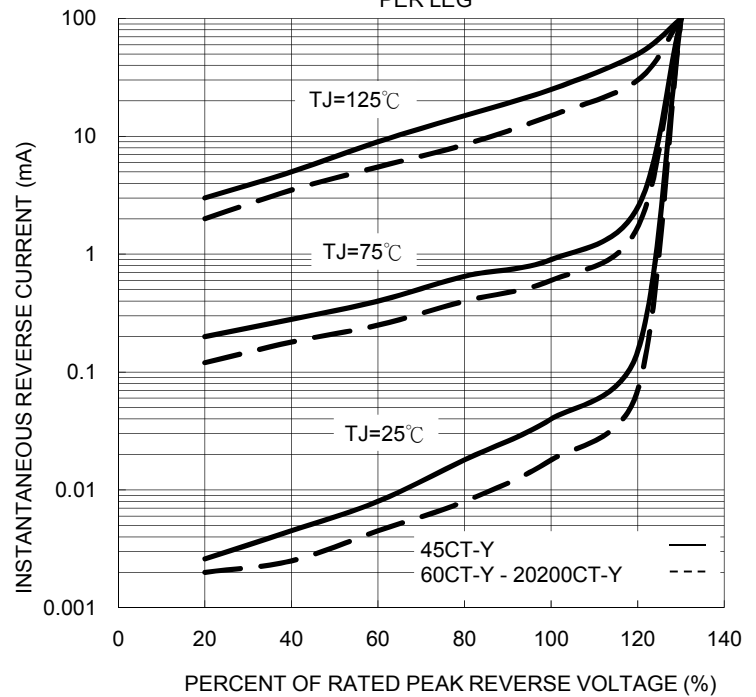
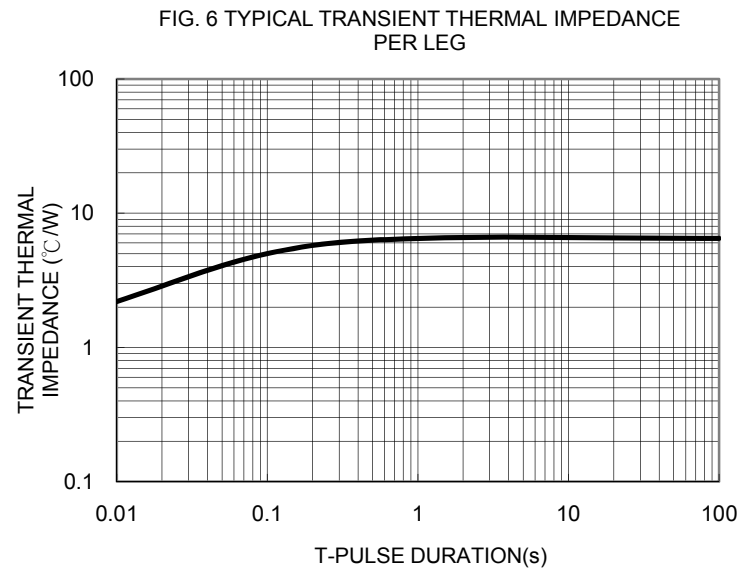
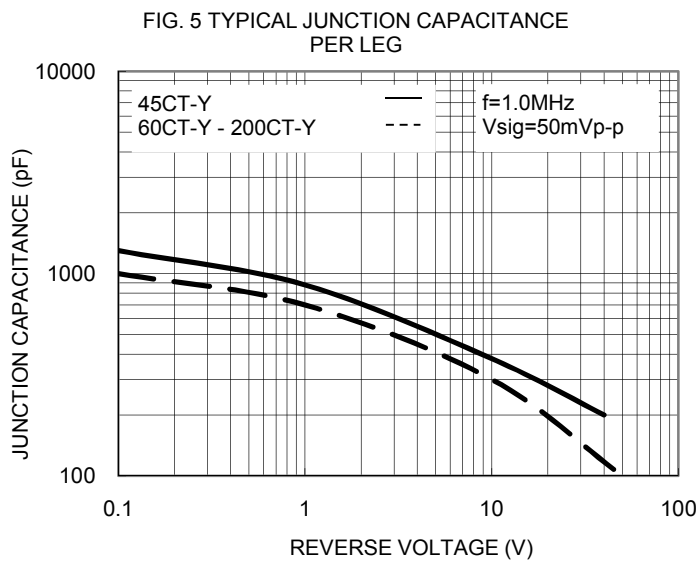
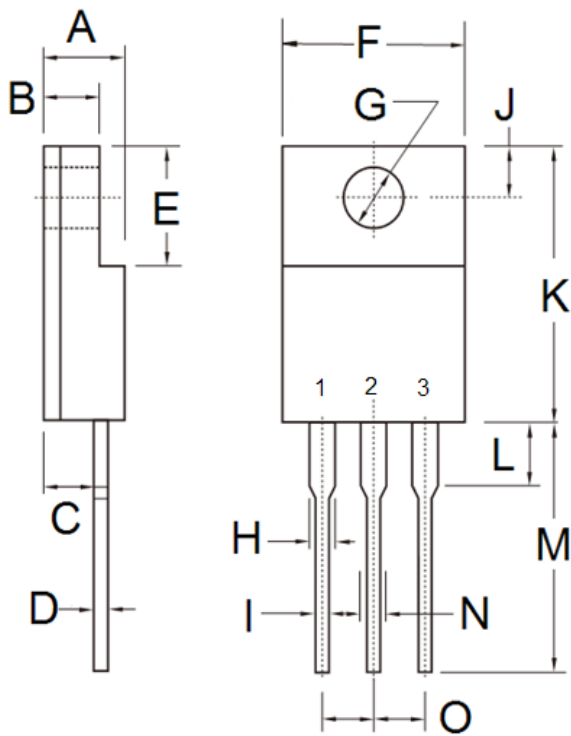


FIG.4 TYPICAL REVERSE CHARACTERISTICS PER LEG





PACKAGE OUTLINE DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	4.30	4.70	0.169	0.185
B	2.50	3.16	0.098	0.124
C	2.30	2.96	0.091	0.117
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	0.95	1.45	0.037	0.057
I	0.50	0.90	0.020	0.035
J	2.40	3.20	0.094	0.126
K	14.80	15.50	0.583	0.610
L	-	4.10	-	0.161
M	12.60	13.80	0.496	0.543
N	-	1.80	-	0.071
O	2.41	2.67	0.095	0.105

MARKING DIAGRAM



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

### Notice

Specifications of the products displayed herein are subject to change without notice. TSC or anyone on its behalf, assumes no responsibility or liability for any errors inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in TSC's terms and conditions of sale for such products, TSC assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of TSC products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify TSC for any damages resulting from such improper use or sale.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Taiwan Semiconductor:](#)

[MBRF20100CT-Y C0G](#) [MBRF20150CT-Y C0G](#) [MBRF2045CT-Y C0G](#) [MBRF2060CT-Y C0G](#) [MBRF20100CT-Y](#)  
[MBRF20150CT-Y](#) [MBRF20200CT-Y](#) [MBRF2045CT-Y](#) [MBRF2060CT-Y](#)