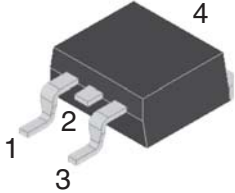
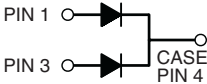


**15.0 Amp. Surface Mount Schottky Barrier Rectifiers**

<b>TO-263AB (D2PAK)</b>		<b>Voltage</b> 45 to 150 V	<b>Current</b> 15.0 A
		<b>FEATURES</b> <ul style="list-style-type: none"> <li>• Low leakage current</li> <li>• Ideal for automated placement</li> <li>• Guardring for overvoltage protection</li> <li>• Low power losses, high efficiency</li> <li>• Low forward voltage drop</li> <li>• High frequency operation</li> <li>• High forward surge current capability</li> <li>• Solder dip 260°C, 10s</li> <li>• AEC-Q101 qualified</li> <li>• Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC</li> <li>• Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C</li> </ul>	
		<b>MECHANICAL DATA</b> <ul style="list-style-type: none"> <li>• <b>Case:</b> TO-263AB (D2PAK) molded plastic. Epoxy meets UL 94V-0 flammability rating.</li> <li>• <b>Polarity:</b> As marked</li> <li>• <b>Terminals:</b> Matte tin plated leads, solderable per MIL-STD-750 Method 2026, J-STD-002 and JESD22-B102. Consumer grade, meets JESD 201 class 1A whisker test.</li> </ul>	
		<b>TYPICAL APPLICATIONS</b> Used in low voltage, high frequency rectifier of switching mode power supplies, freewheeling diodes, dc-to-dc converters or polarity protection application.	

**Maximun Ratings and Electrical Characteristics at 25°C**

		MBRS 1545CT	MBRS 1560CT	MBRS 15100CT	MBRS 15150CT
V <sub>RRM</sub>	Maximum recurrent peak reverse voltage (V)	45	60	100	150
V <sub>RMS</sub>	Maximum RMS voltage (V)	31	42	70	105
V <sub>DC</sub>	Maximum DC blocking voltage (V)	45	60	100	150
I <sub>F (AV)</sub>	Maximum average forward rectified current See Fig.	15 A			
I <sub>FSM</sub>	Peak Forward Surge Current 8.3 ms. single Half Sine-wave Superimposed on Rated Load (Jedec Method)	150 A			
C <sub>j</sub>	Typical junction capacitance (1MHz; -4V)	700 pF	460 pF	320 pF	
T <sub>j</sub>	Operating junction temperature range	– 65 to + 150 °C			
T <sub>stg</sub>	Storage temperature range	– 65 to + 175 °C			

**Electrical Characteristics at Tamb = 25 °C**

V <sub>F</sub>	Max. forward voltage drop at I <sub>F</sub> = 7.5 A (Note 1)	T <sub>c</sub> = 25 °C T <sub>c</sub> = 125 °C	--	0.75 V	0.92 V	0.95 V
			0.57 V	0.65 V	0.82 V	0.92 V
	Max. forward voltage drop at I <sub>F</sub> = 15 A	T <sub>c</sub> = 25 °C T <sub>c</sub> = 125 °C	0.84 V	--	--	--
			0.72 V	--	--	--
I <sub>R</sub>	Maximum D.C. Reverse Current @ T <sub>c</sub> = 25°C at Rated DC Blocking Voltage @ T <sub>c</sub> = 125°C (Note 1)		0.1 mA			
			15 mA	10 mA	5.0 mA	
R <sub>thj-a</sub> R <sub>thj-C</sub>	Typical Thermal Resistance Per Leg (Note 2)		50 °C/W 2.0 °C/W			

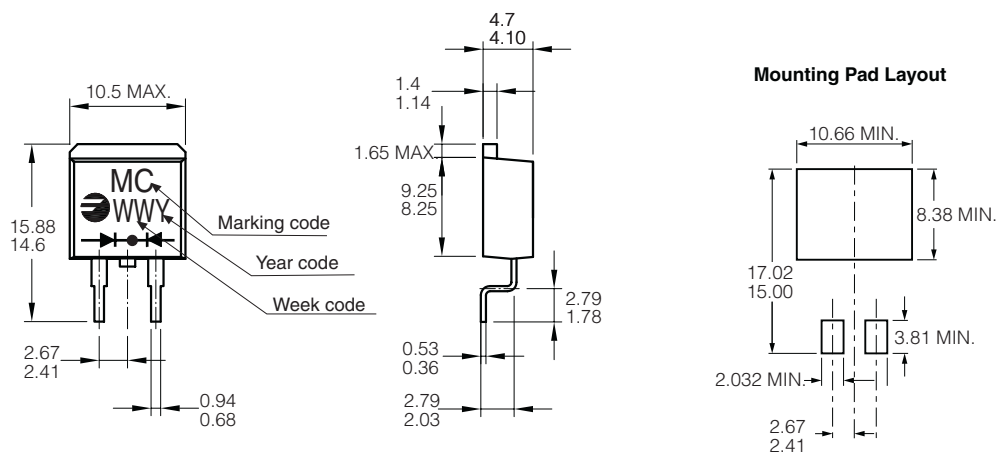
Notes: 1. Pulse Test: 300μ Pulse Width, 1% Duty Cycle  
 2. Mounted on Heatsink Size of 2 in x 3 in x 0.25 in Al-Plate.

## 15.0 Amp. Surface Mount Schottky Barrier Rectifiers

### Ordering information

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
MBRS15150CT 00TR	TR	13" diameter tape and reel	800	1.33
MBRS15150CT 00TU	TU	TUBE	1000	1.33

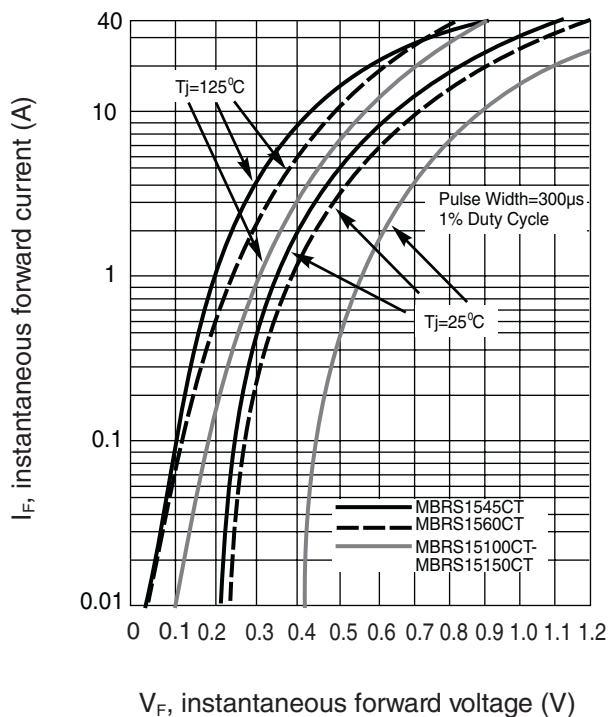
### Package Outline Dimensions: (mm) TO-263AB (D2PAK)



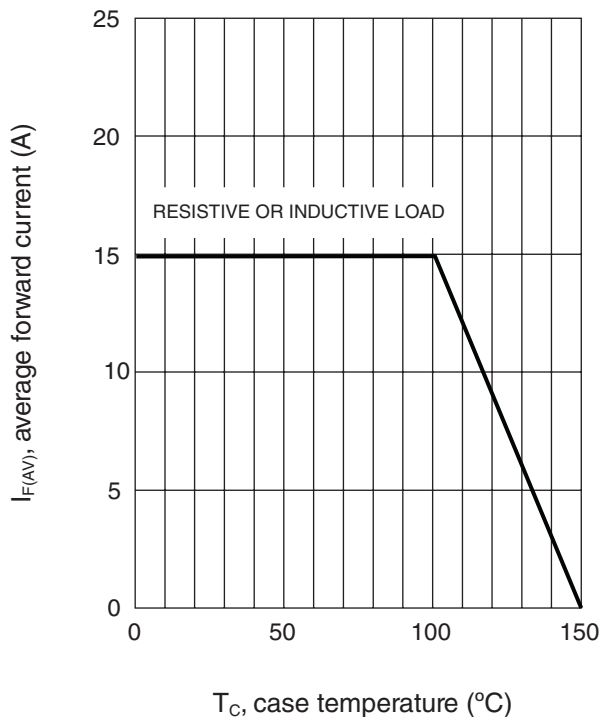
# 15.0 Amp. Surface Mount Schottky Barrier Rectifiers

## Ratings and Characteristics (Ta 25 °C unless otherwise noted)

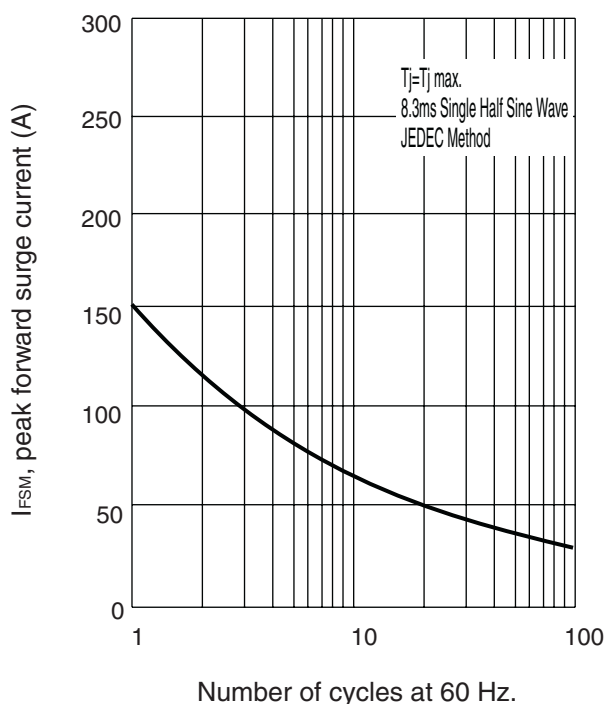
TYPICAL FORWARD CHARACTERISTIC PER LEG



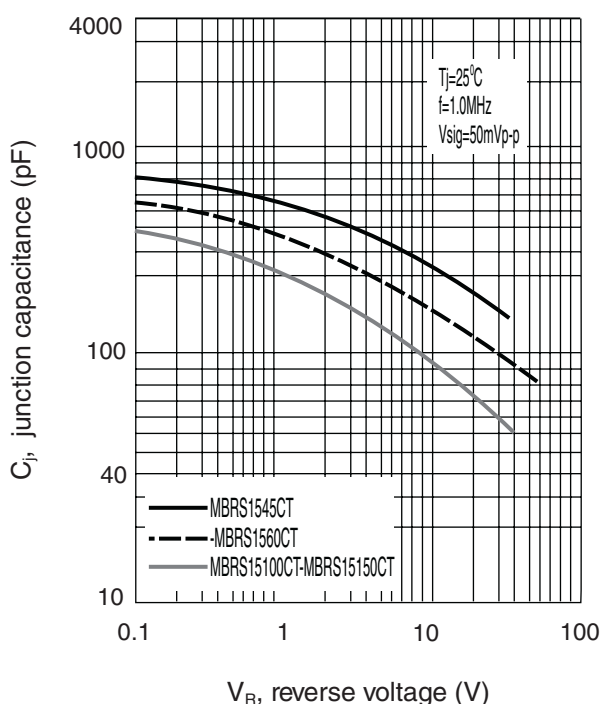
MAXIMUM FORWARD CURRENT DERATING CURVE



MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG



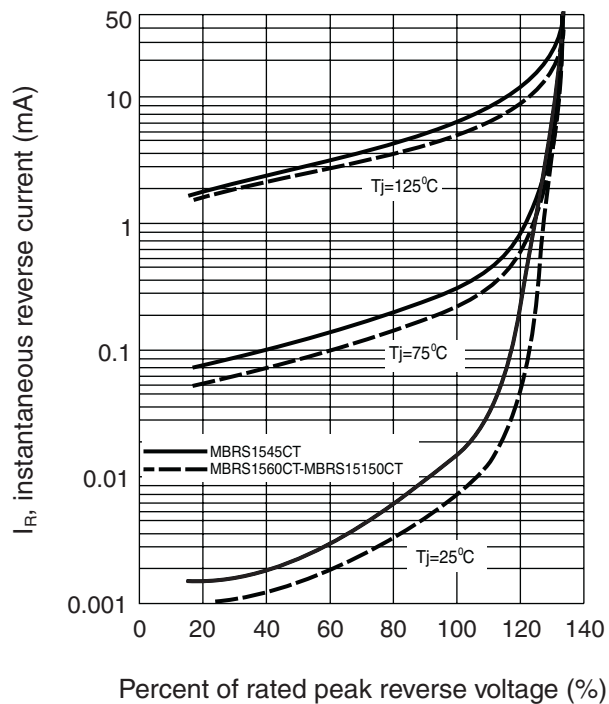
TYPICAL JUNCTION CAPACITANCE PER LEG



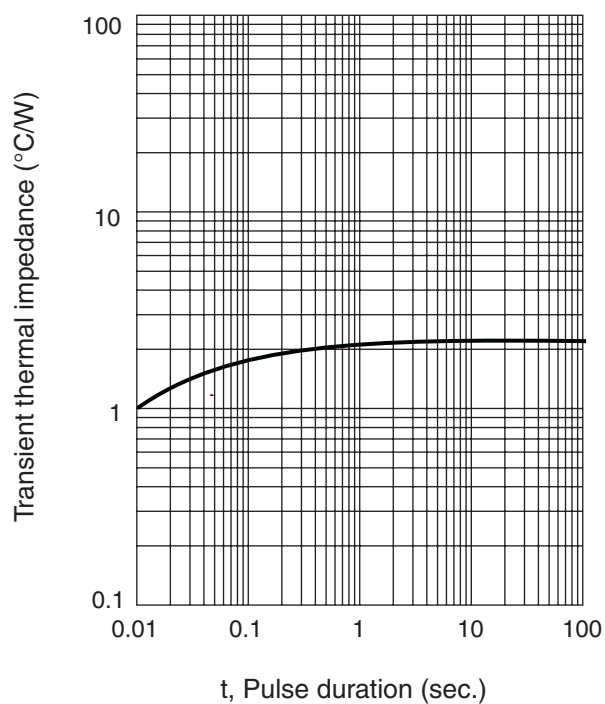
# 15.0 Amp. Surface Mount Schottky Barrier Rectifiers

## Ratings and Characteristics (Ta 25 °C unless otherwise noted)

TYPICAL REVERSE CHARACTERISTICS  
PER LEG



TYPICAL TRANSIENT THERMAL  
CHARACTERISTIC



**15.0 Amp. Surface Mount Schottky Barrier Rectifiers****Revision History**

Date	Revision	Description of Changes
14-May-2009	0	Original Data Sheet
17-Oct-2016	1	Format update

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