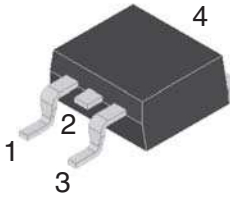
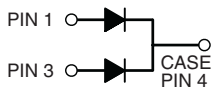





15.0 Amp. Surface Mount High Temperature Technology Schottky Rectifier

<p>TO-263AB / D2PAK</p>  	<p>Voltage 45 to 60 V</p>	<p>Current 15.0 A</p>	
	<p>FEATURES</p> <ul style="list-style-type: none"> • Low leakage current • Ideal for automated placement • Guardring for overvoltage protection • Low power losses, high efficiency • Low forward voltage drop • High frequency operation • High forward surge current capability • Solder dip 260°C, 10s • Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC • Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C 		   RoHS COMPLIANT
	<p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case: TO-263AB / D2PAK molded plastic. Epoxy meets UL 94V-0 flammability rating. • Polarity: As marked • Terminals: 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. HE3 suffix for high reliability grade (AEC Q101 qualified), meets JESD 201 class 2 whisker test. 		
	<p>TYPICAL APPLICATIONS</p> <p>Used in low voltage, high frequency rectifier of switching mode power supplies, freewheeling diodes, dc-to-dc converters or polarity protection application.</p>		

Maximum Ratings and Electrical Characteristics at 25°C

Marking Code		MBRS 15H45CTC	MBRS 15H60CTC
		MBRS15H45CTC	MBRS15H60CTC
V_{RRM}	Maximum recurrent peak reverse voltage (V)	45	60
V_{RMS}	Maximum RMS voltage (V)	31	42
V_{DC}	Maximum DC blocking voltage (V)	45	60
$I_{F(AV)}$	Maximum average forward rectified current @ $T_c = 155^\circ\text{C}$ Total Device Per Diode	15 A 7.5 A	
I_{FSM}	Peak Forward Surge Current 8.3 ms. single Half Sine-wave Superimposed on Rated Load (Jedec Method)	150 A	
T_j	Operating junction temperature range	- 65° to + 175 °C	
T_{stg}	Storage temperature range	- 65° to + 175 °C	

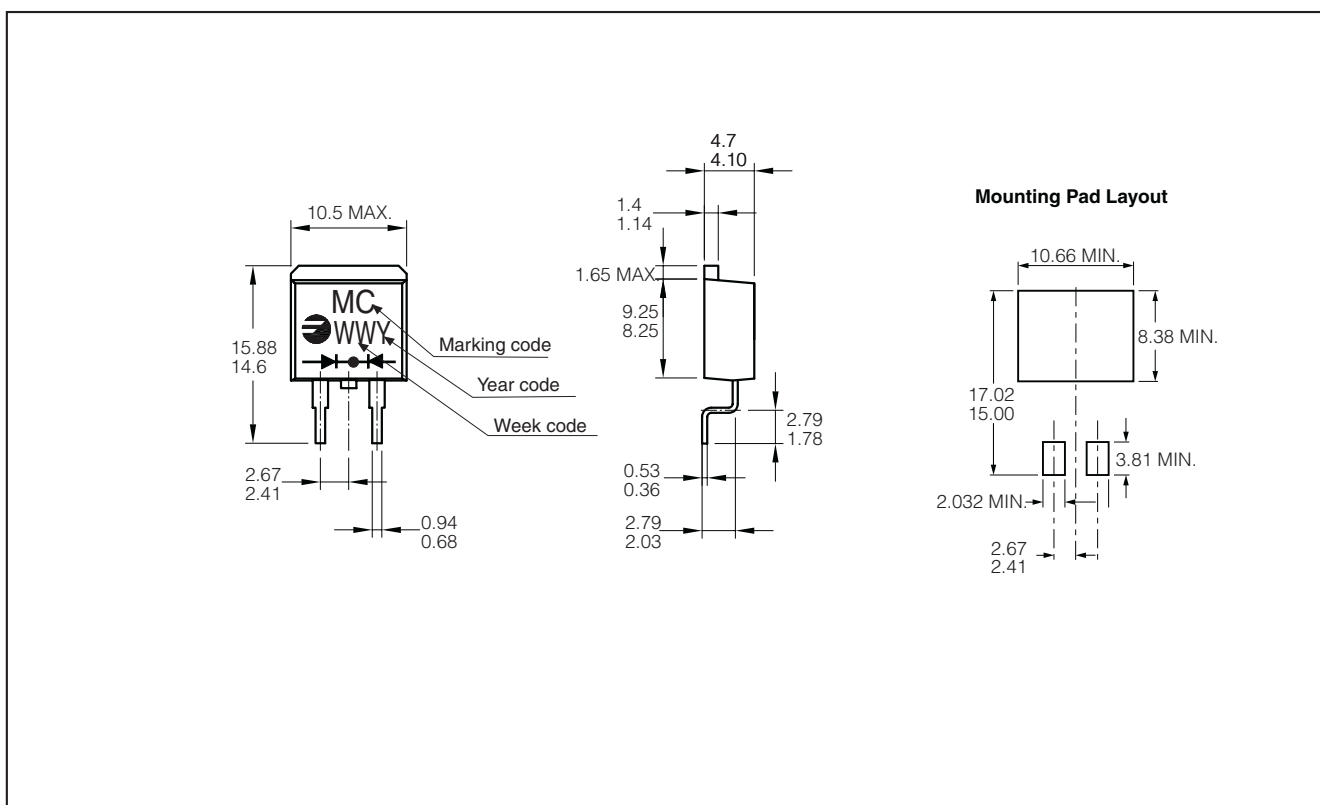
Electrical Characteristics at $T_{amb} = 25^\circ\text{C}$

V_F	Max. instantaneous forward voltage per diode at $I_F = 7.5\text{ A}$ (Note 1)	$T_j = 25^\circ\text{C}$	0.65 V	0.71 V
		$T_j = 125^\circ\text{C}$	0.57 V	0.61 V
	Max. instantaneous forward voltage per diode at $I_F = 15\text{ A}$ (Note 1)	$T_j = 25^\circ\text{C}$	0.84 V	0.90 V
		$T_j = 125^\circ\text{C}$	0.72 V	0.75 V
I_R	Maximum D.C. Reverse Current @ $T_j = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_j = 100^\circ\text{C}$ (Note 3)		0.1 mA	
			15 mA	
R_{thj-c}	Typical Thermal Resistance (Note 2)		2.0 °C/W	

Notes: 1. Pulse Test: 300µ Pulse Width, 1% Duty Cycle
 2. Thermal Resistance from Junction to Case per diode
 3. Pulse test: Pulse width $\leq 40\text{ms}$

15.0 Amp. Surface Mount High Temperature Technology Schottky Rectifier
Ordering information

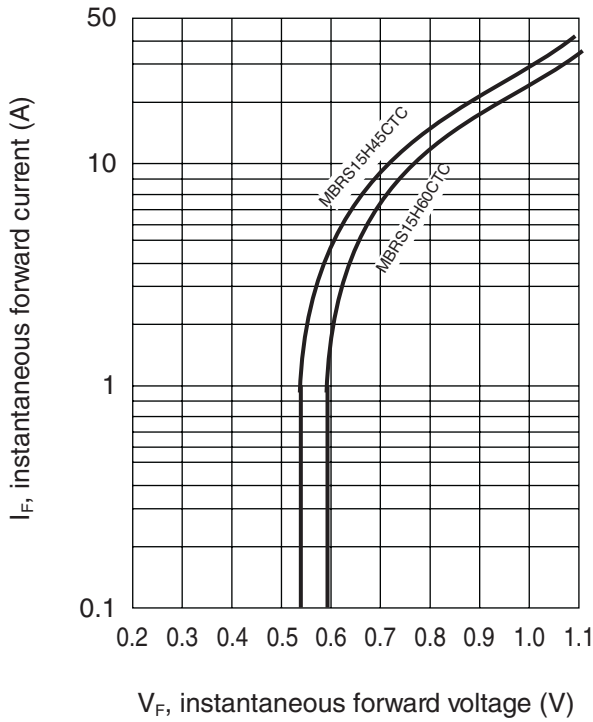
PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
MBRS15H45CTC 00TRC	TR	13" diameter tape and reel	800	1.45
MBRS15H45CTC 00 HE3 TRC	TR	13" diameter tape and reel	800	1.45
MBRS15H45CTC 00TUC	TU	TUBE	1000	1.45
MBRS15H45CTC 00 HE3 TUC	TU	TUBE	1000	1.45

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


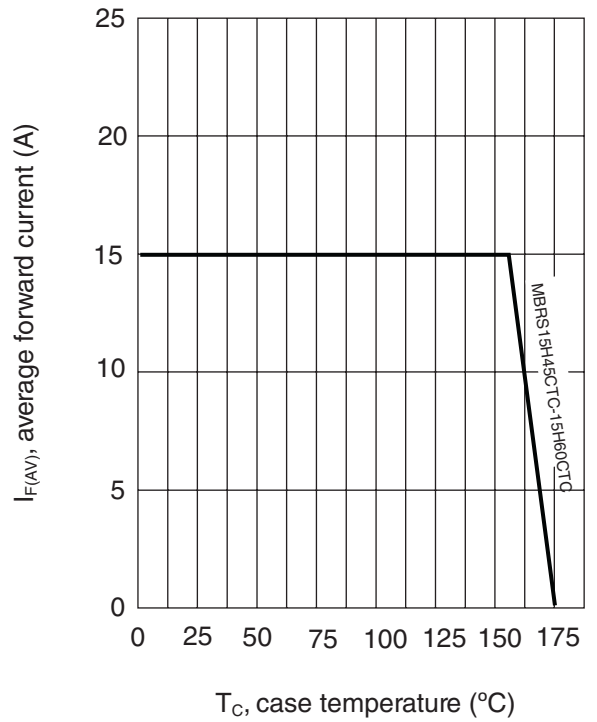
15.0 Amp. Surface Mount High Temperature Technology Schottky Rectifier

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

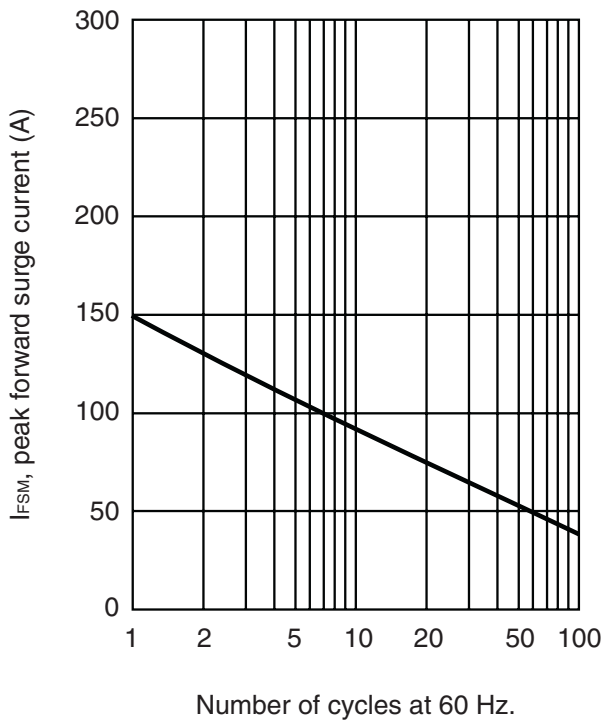
TYPICAL FORWARD CHARACTERISTIC PER DIODE



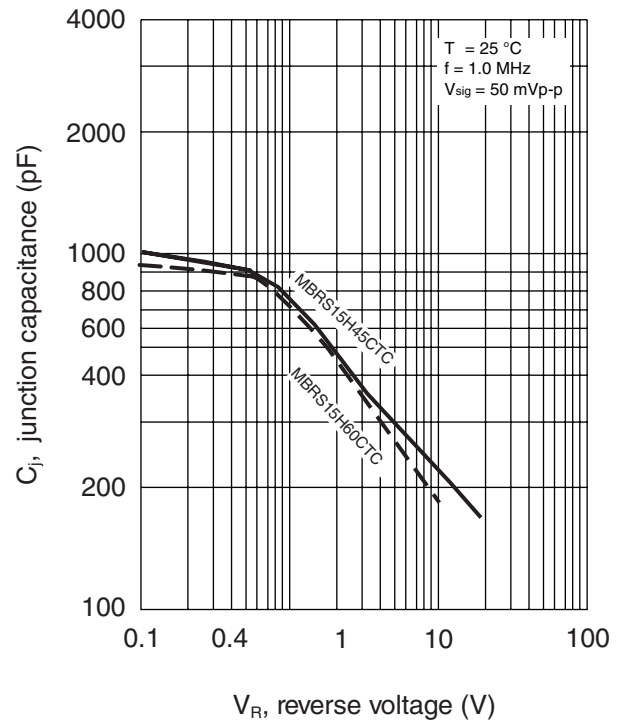
MAXIMUM FORWARD CURRENT DERATING CURVE



MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER DIODE



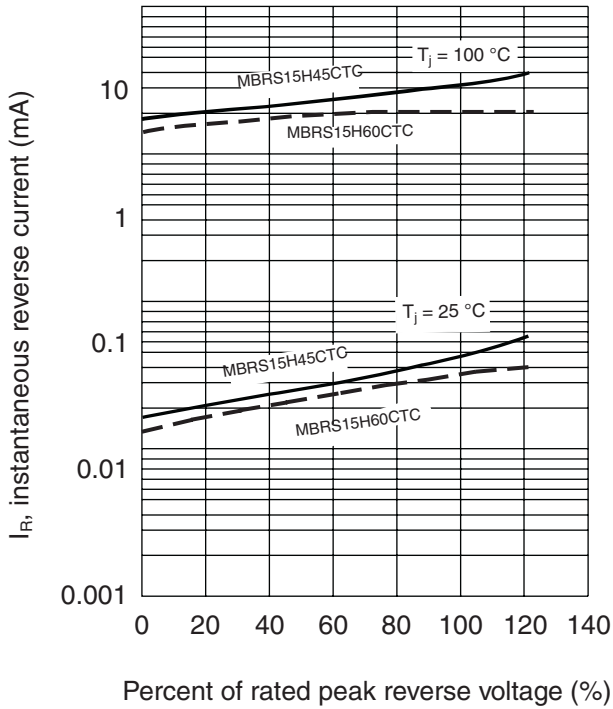
TYPICAL JUNCTION CAPACITANCE PER DIODE



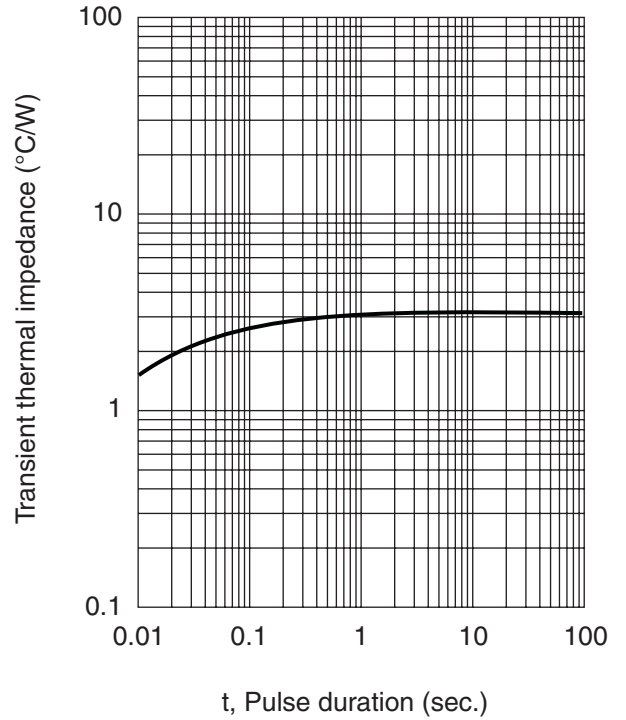
15.0 Amp. Surface Mount High Temperature Technology Schottky Rectifier

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

TYPICAL REVERSE CHARACTERISTICS PER DIODE



TYPICAL TRANSIENT THERMAL IMPEDANCE PER DIODE



15.0 Amp. Surface Mount High Temperature Technology Schottky Rectifier

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