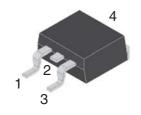
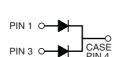


#### MBRS2545CT ...... MBRS25150CT

## 25.0 Amp. Surface Mount Schottky Barrier Rectifiers

## **TO-263AB (D2PAK)**





Voltage	Current
45 to 150 V	25.0 A

#### **FEATURES**

- 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
- AEC-Q101 qualified
- Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C

#### **MECHANICAL DATA**

- 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.

#### **TYPICAL APPLICATIONS**

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 2545CT	MBRS 2560CT	MBRS 25100CT	MBRS 25150CT
$V_{RRM}$	Maximum recurrent peak reverse voltage (V) 45 60 100 1		150		
$V_{RMS}$	/ <sub>RMS</sub> Maximum RMS voltage (V) 31 42 70 10		105		
$V_{DC}$	Maximum DC blocking voltage (V)		60	100	150
I <sub>F (AV)</sub>	Maximum average forward rectified current See Fig.	25 A			
I <sub>FSM</sub>	Peak Forward Surge Current 8.3 ms. single Half Sine-wave Superimposed on Rated Load (Jedec Method)	200 A			
Tj	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	Tc = 25 °C Tc = 125 °C	0.82 V	0.75 V	0.85 V	0.95 V
•	at $I_F = 12.5 \text{ A}$ (Note 1)		0.73 V	0.65 V	0.75 V	0.92 V
	Max. forward voltage drop	Tc = 25 °C			0.92 V	1.02 V
	at $I_F = 25 \text{ A}$	Tc = 125 °C			0.88 V	0.98 V
I-	Maximum D.C. Reverse Current @ Tc = 25 °C at Rated DC Blocking Voltage @ Tc= 125 °C (Note 1)		0.2 mA		0.1 mA	
I'R			15 mA	10 mA	7.5 mA	5.0 mA
R <sub>thj-C</sub>	Typical Thermal Resistance (Note 2)		1.0 °C/W			

Notes: 1. Pulse Test: 300µ Pulse Width, 1% Duty Cycle 2. Thermal Resistance from Junction to Case Per Leg

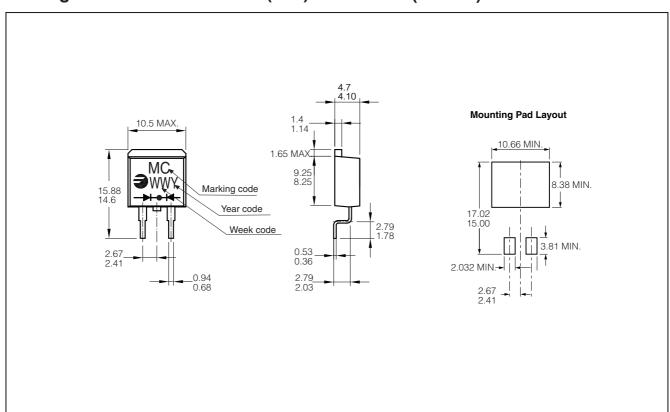


# 25.0 Amp. Surface Mount Schottky Barrier Rectifiers

# **Ordering information**

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
MBRS25150CT 00TRC	TR	13" diameter tape and reel	800	1.33
MBRS25150CT 00TUC	TU	TUBE	1000	1.33

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



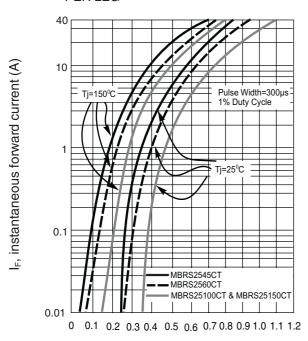


#### MBRS2545CT ...... MBRS25150CT

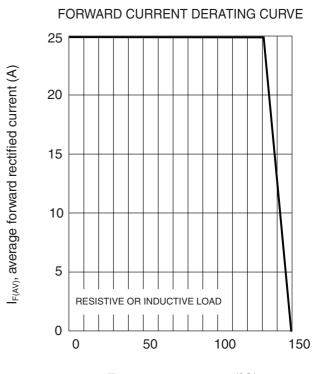
## 25.0 Amp. Surface Mount Schottky Barrier Rectifiers

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

TYPICAL FORWARD CHARACTERISTIC PER LEG

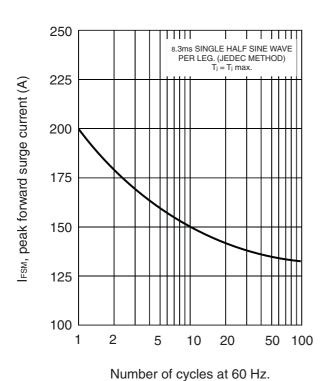


V<sub>F</sub>, instantaneous forward voltage (V)

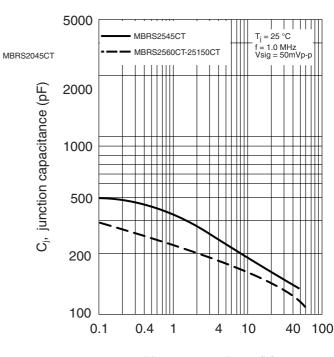


T<sub>C</sub>, case temperature (°C)

#### MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG



# TYPICAL JUNCTION CAPACITANCE PER LEG



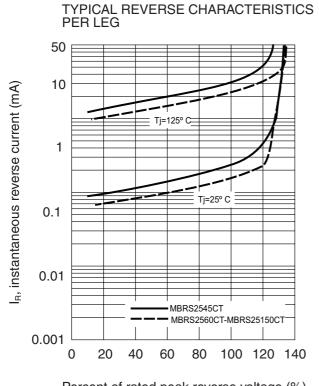
V<sub>R</sub>, reverse voltage (V)

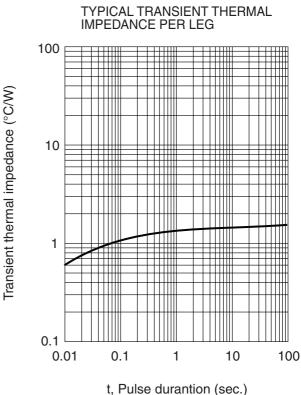




# **25.0 Amp. Surface Mount Schottky Barrier Rectifiers**

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







#### MBRS2545CT ...... MBRS25150CT

### **25.0 Amp. Surface Mount Schottky Barrier Rectifiers**

#### **Revision History**

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

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