



## MBR545

Preliminary

DIODE

### SCHOTTKY BARRIER RECTIFIER

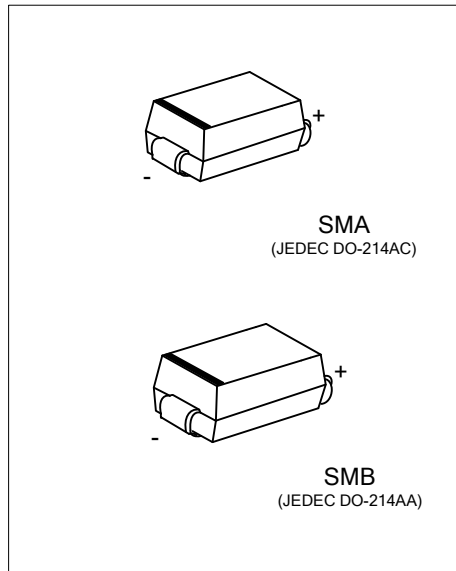
#### DESCRIPTION

The UTC **MBR545** is a schottky barrier rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop, high current capability and high efficiency, etc.

The UTC **MBR545** is suitable for use in free wheeling, high frequency inverters, low voltage and polarity protection applications.

#### FEATURES

- \* Low forward voltage drop
- \* High efficiency
- \* Low power loss
- \* High surge capability
- \* High current capability



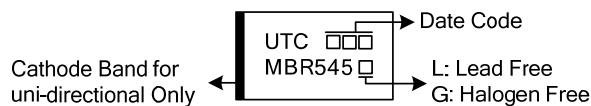
#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
MBR545L-SMA-R	MBR545G-SMA-R	SMA	K	A	Tape Reel
MBR545L-SMB-R	MBR545G-SMB-R	SMB	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>MBR545L-SMA-R</p> <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Green Package</p>	<p>(1) R: Tape Reel</p> <p>(2) SMA: SMA, SMB: SMB</p> <p>(3) L: Lead Free, G: Halogen Free and Lead Free</p>
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#### MARKING



■ **ABSOLUTE MAXIMUM RATINGS**

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.

PARAMETER	SYMBOL	RATINGS	UNIT
DC Blocking Voltage	V <sub>DC</sub>	45	V
RMS Voltage	V <sub>RMS</sub>	31.5	V
Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	45	V
Average Rectified Output Current	I <sub>O</sub>	5.0	A
Non-Repetitive Peak Forward Surge Current: 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	150	A
Operating Junction Temperature	T <sub>J</sub>	-65~+150	°C
Storage Temperature	T <sub>STG</sub>	-65~+150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.  
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ **THERMAL RESISTANCES CHARACTERISTICS**

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient (Note 1)	θ <sub>JA</sub>	50	°C/W

■ **ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Forward Voltage Drop (Note 2)	V <sub>F</sub>	I <sub>F</sub> =5.0A			0.70	V
Peak Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	T <sub>J</sub> =25°C			0.05	mA
		T <sub>J</sub> =100°C			10	mA

Notes: 1. Minimum Pad Area.  
2. Pulse test: 300µs pulse width, 1% duty cycle.

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