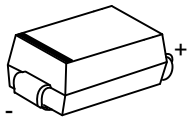
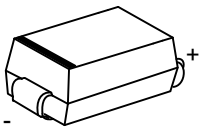
SCHOTTKY BARRIER RECTIFIER



SMA
(JEDEC DO-214AC)



SMB
(JEDEC DO-214AA)

■ 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

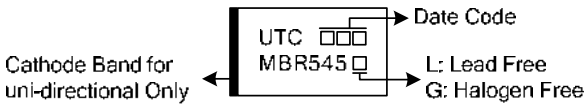
Note: Pin Assignment: A: Anode K: Cathode

MBR545L-SMA-R

(1)Packing Type
(2)Package Type
(3)Green Package

(1) R: Tape Reel
(2) SMA: SMA, SMB: SMB
(3) L: Lead Free, G: Halogen Free and Lead Free

■ 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_{DC}	45	V
RMS Voltage	V_{RMS}	31.5	V
Recurrent Peak Reverse Voltage	V_{RRM}	45	V
Average Rectified Output Current	I_O	5.0	A
Non-Repetitive Peak Forward Surge Current: 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	150	A
Operating Junction Temperature	T_J	-65~+150	°C
Storage Temperature	T_{STG}	-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_{JA}	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_F	I_F=5.0A			0.70	V
Peak Reverse Current at Rated DC Blocking Voltage	I_R	T_J=25°C			0.05	mA
		T_J=100°C			10	mA

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