

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE: 35 --- 300 V

CURRENT:15.0A

FEATURES

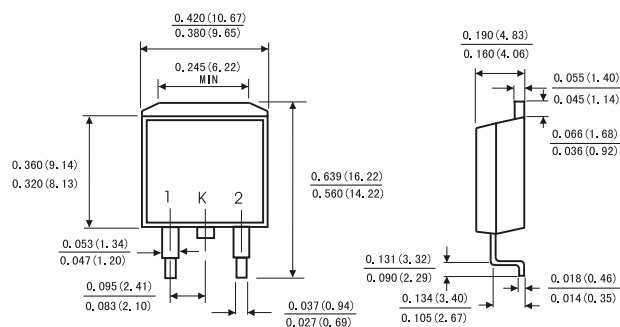
- ◇ Metal-semiconductor junction with guard ring
- ◇ Epitaxial construction
- ◇ Low forward voltage drop, low switching losses
- ◇ High surge capability
- ◇ For use in low voltage, high frequency inverters free wheeling, and polarity protection applications
- ◇ The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- ◇ Case: JEDEC TO-263, molded plastic
- ◇ Terminals: Axial lead, solderable per MIL-STD-202, Method 208
- ◇ Polarity: As marked
- ◇ Weight: 0.08 ounces, 2.24 grams
- ◇ Mounting position: Any

TO - 263

D2PAK



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		Symbols	MBR 1535CT	MBR 1545CT	MBR 1550CT	MBR 1560CT	MBR 15A0CT	MBR 15150CT	MBR 15200CT	Units
Maximum repetitive peak reverse voltage		V _{RRM}	35	45	50	60	100	150	200	Volts
Maximum RMS voltage		V _{RMS}	25	32	35	42	70	105	140	Volts
Maximum DC blocking voltage		V _{DC}	35	45	50	60	100	150	200	Volts
Maximum average forward rectified current(see Fig.1)	Per leg	I(AV)	7.5 15.0						Amps	
	Total device									
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I _{FSM}	150.0						Amps	
Maximum instantaneous forward voltage at 15 A		V _F	0.60		0.75		0.85	0.90	0.95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T _c =25℃	I _R	0.2						mA	
	T _c =125℃		30		50					
Typical thermal resistance (Note 2)		R _{θJC}	3.0						℃/W	
Operating junction temperature range		T _J	-65 to +150						℃	
Storage temperature range		T _{STG}	-65 to +150						℃	

NOTE: 1. Pulse test: 300us pulse width, 1% duty cycle.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance junction to ambient

FIG.1-FORWARD CURRENT DERATING CURVE

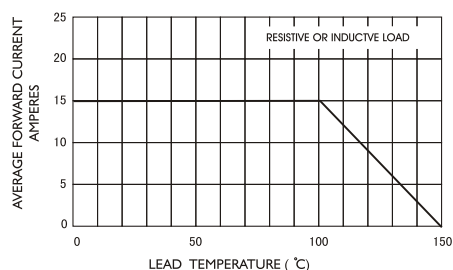


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

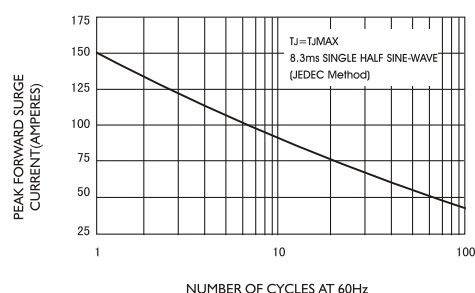


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

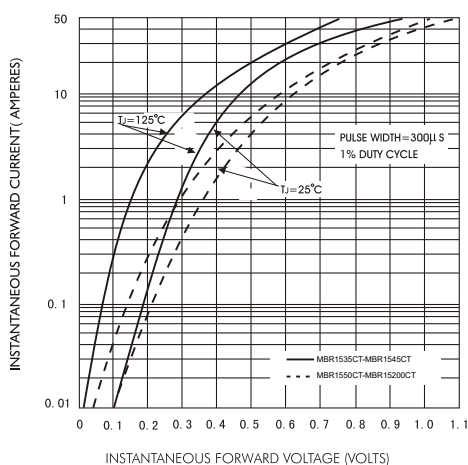


FIG.4-TYPICAL REVERSE CHARACTERISTICS

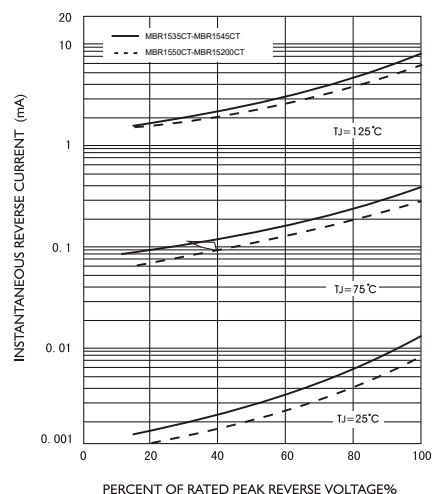


FIG.5-TYPICAL JUNCTION CAPACITANCE

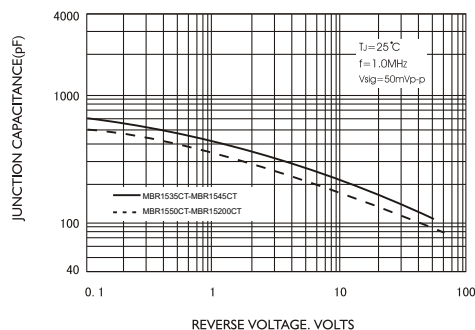


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

