

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE: 20 --- 200 V
CURRENT: 6.0A

FEATURES

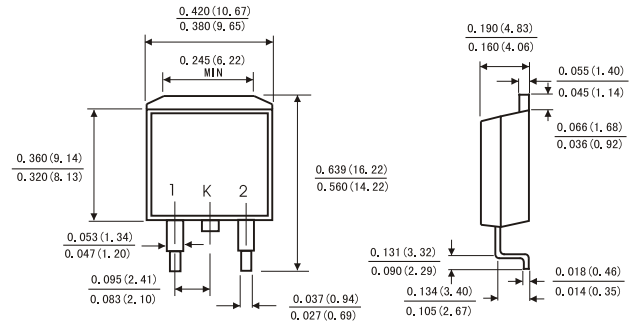
- ◇ Metal-semiconductor junction with guard ring
- ◇ Epitaxial construction
- ◇ Low forward voltage drop, low switching losses
- ◇ High surge capability
- ◇ For use in low voltage, high frequency inverters free wheeling, and polarity protection applications
- ◇ The plastic material carries U/L recognition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



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 620	MBR 630	MBR 640	MBR 650	MBR 660	MBR 680	MBR 6A0	MBR 6150	MBR 6200	Units
Maximum repetitive peak reverse voltage		VRRM	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS voltage		VRMS	14	21	28	35	42	57	71	105	140	Volts
Maximum DC blocking voltage		VDC	20	30	40	50	60	80	100	150	200	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)		IAV	6.0									Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TJ)		IFSM	150.0									Amps
Maximum instantaneous forward voltage at 6.0 A(Note 1)		VF	0.60			0.75		0.85		0.90	0.95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	TA = 25°C	IR	0.2									mA
	TA = 100°C		50			25						
Typical junction capacitance(Note 3)		CJ	500			400						pF
Typical thermal resistance (Note 2)		RθJA RθJL	25.0 8.0									°C/W
Operating junction temperature range		TJ	-65 to +150									°C
Storage temperature range		TSTG	-65 to +150									°C

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

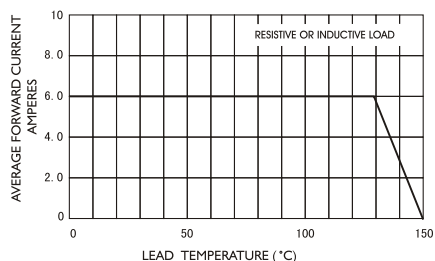


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

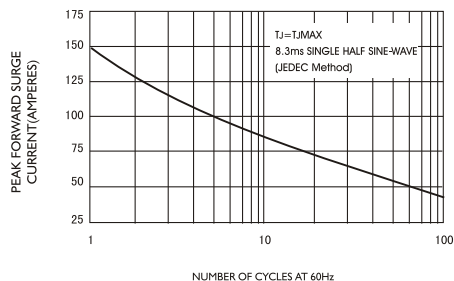


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

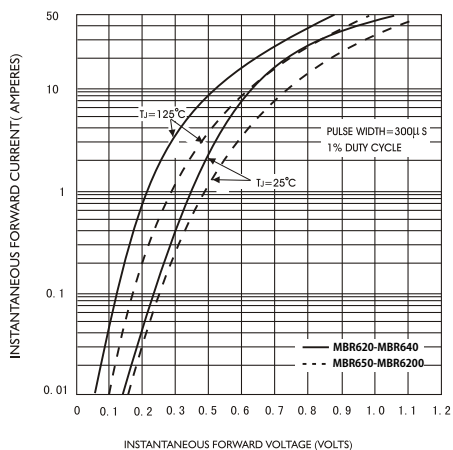


FIG.4-TYPICAL REVERSE CHARACTERISTICS

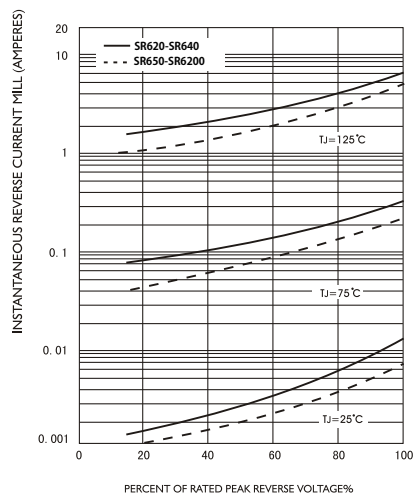


FIG.5-TYPICAL JUNCTION CAPACITANCE

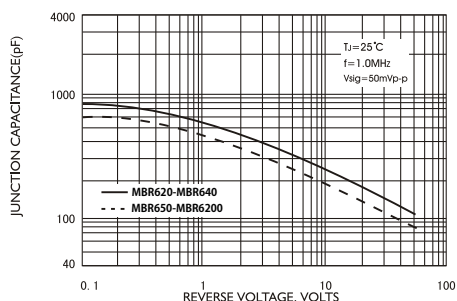


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

