

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE: 20 --- 200 V
CURRENT:20.0A

FEATURES

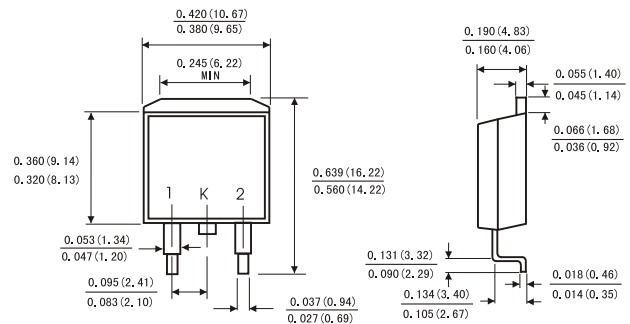
- ◇ Metal-semiconductor junction with guard ring
- ◇ Epitaxial construction
- ◇ Low forward voltage drop, low switching losses
- ◇ High surge capability
- ◇ For use in low voltage, high frequency inverters free wheeling, and polarity protection applications
- ◇ The plastic material carries U/L recognition 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 2020	MBR 2030	MBR 2040	MBR 2050	MBR 2060	MBR 2080	MBR 20A0	MBR 20150	MBR 20200	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	56	70	105	140	Volts
Maximum DC blocking voltage	VDC	20	30	40	50	60	80	100	150	200	Volts
Maximum average forward rectified current See Fig. 1	I(AV)	20.0									Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	200.0									Amps
Maximum instantaneous forward voltage at 20.0 A	VF	0.60			0.75		0.85		0.90	0.95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	Tc = 25°C	IR	0.2						mA		
	Tc = 125°C		30		50						
Typical thermal resistance (Note 2)	RθJC	3.0									°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

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FIG.1-FORWARD CURRENT DERATING CURVE

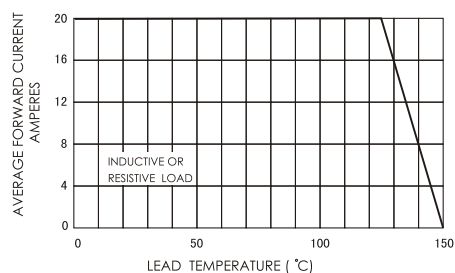


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

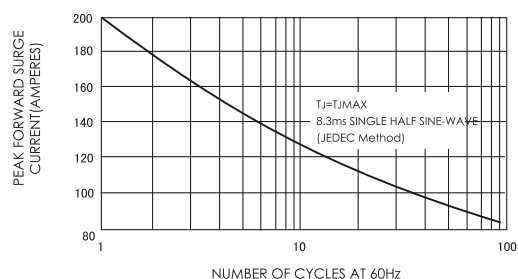


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

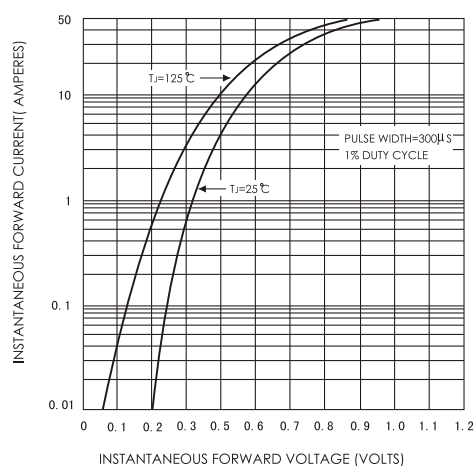


FIG.4-TYPICAL REVERSE CHARACTERISTICS

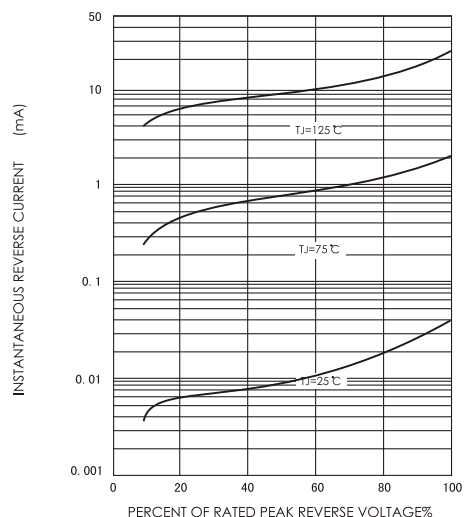


FIG.5-TYPICAL JUNCTION CAPACITANCE

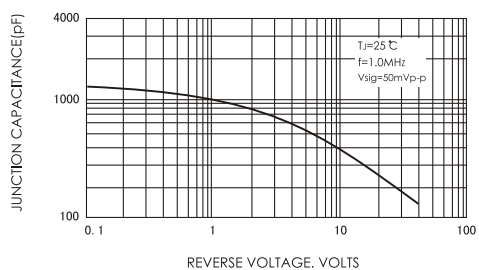


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

