

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE: 30 --- 200 V
CURRENT:40.0A

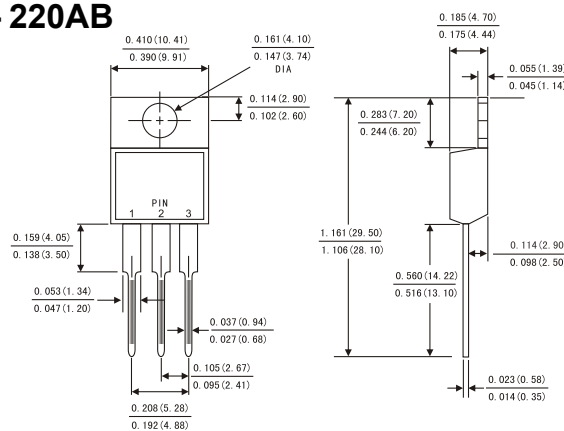
FEATURES

- ◇ 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-220AB, molded plastic
- ◇ Terminals: Axial lead, solderable per MIL-STD-750, Method 2026
- ◇ Polarity: As marked
- ◇ Weight: 0.08 ounces, 2.24 grams
- ◇ Mounting position: Any

TO - 220AB



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 4030CT	MBR 4035CT	MBR 4040CT	MBR 4045CT	MBR 4050CT	MBR 4060CT	MBR 40A0CT	MBR 40150CT	MBR 40200CT	Units
Maximum repetitive peak reverse voltage		VRRM	30	35	40	45	50	60	100	150	200	Volts
Maximum RMS voltage		VRMS	21	25	28	32	35	42	70	105	140	Volts
Maximum DC blocking voltage		VDC	30	35	40	45	50	60	100	150	200	Volts
Maximum average forward rectified current(see Fig.1)	Per leg	I(AV)	20.0 40.0									Amps
	Total device											
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		IFSM	300.0									Amps
Maximum instantaneous forward voltage at 40.0 A		VF	0.60				0.75		0.85	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

FIG.1-FORWARD CURRENT DERATING CURVE

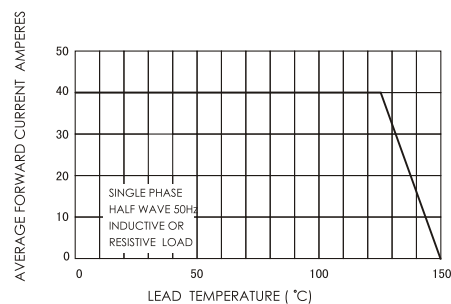


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

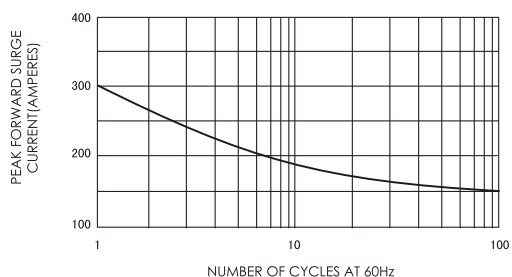


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

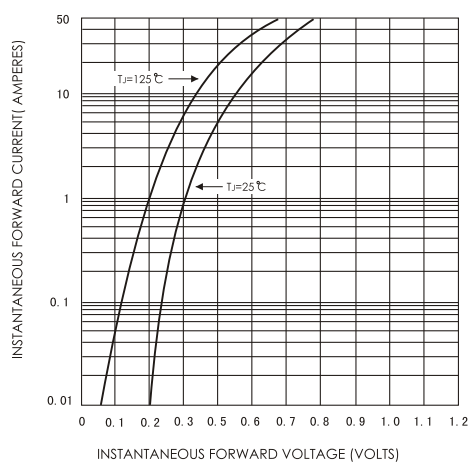


FIG.4-TYPICAL REVERSE CHARACTERISTICS

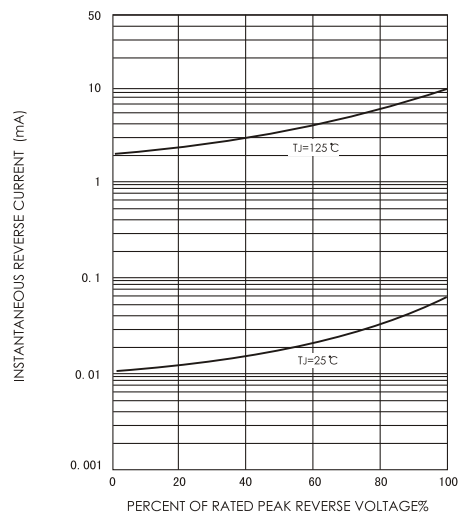


FIG.5-TYPICAL JUNCTION CAPACITANCE

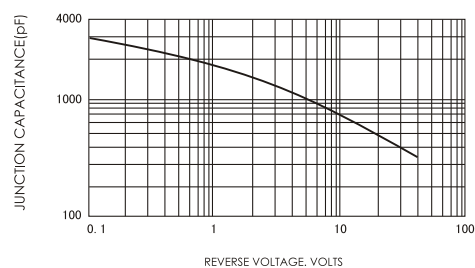


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

