

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - **70 to 100** Volts
FORWARD CURRENT - **8.0** Amperes

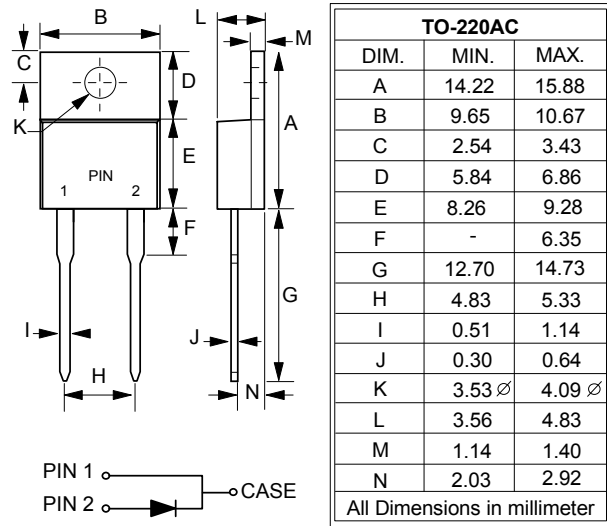
FEATURES

- Metal of silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- Low power loss, high efficiency
- High current capability, low VF
- High surge capacity
- Plastic package has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free-wheeling, and polarity protection applications

MECHANICAL DATA

- Case : TO-220AC molded plastic
- Polarity : As marked on the body
- Weight : 0.08 ounces, 2.24 grams
- Mounting position : Any
- Max. mounting torque = 0.5 N.m (5.1 Kgf.cm)

TO-220AC



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	MBR870L	MBR880L	MBR890L	MBR8100L	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	70	80	90	100	V
Maximum RMS Voltage	VRMS	49	56	63	70	V
Maximum DC Blocking Voltage	VDC	70	80	90	100	V
Maximum Average Forward Rectified Current at Tc=125°C (See Fig. 1)	IAV	8				A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	IFSM	230				A
Voltage Rate of Change (Rated VR)	dv/dt	10000				V/us
Maximum Forward Voltage (Note 1) IF=8A @ TJ=25°C IF=8A @ TJ=125°C	VF	0.72 0.58				V
Maximum DC Reverse Current at Rated DC Blocking Voltage @TJ=25°C @TJ=125°C	IR	0.55 7				mA
Typical Junction Capacitance (Note 2)	CJ	280				pF
Typical Thermal Resistance (Note 3)	RθJC	2.0				°C/W
Operating Temperature Range	TJ	-55 to +150				°C
Storage Temperature Range	TSTG	-55 to +175				°C

NOTES : 1. 300us Pulse Width, 2% Duty Cycle.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3. Thermal Resistance Junction to Case.

FIG.1 - FORWARD CURRENT DERATING CURVE

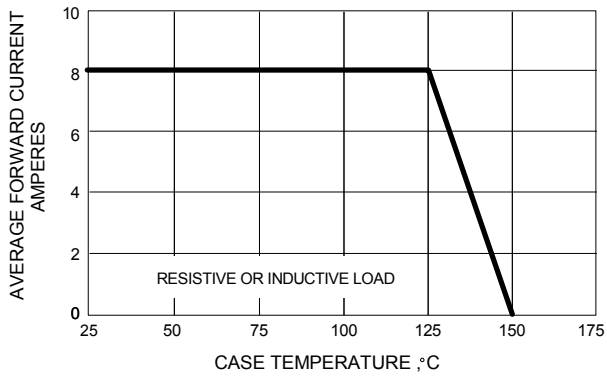


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

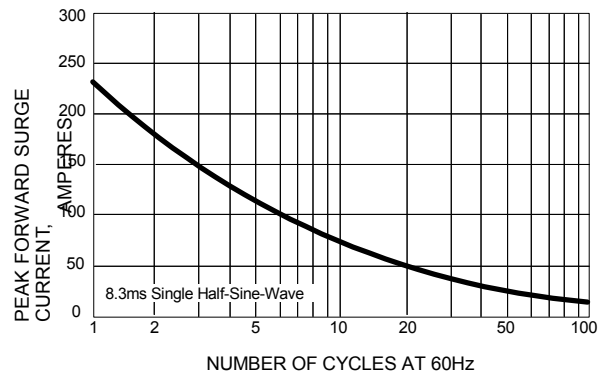


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

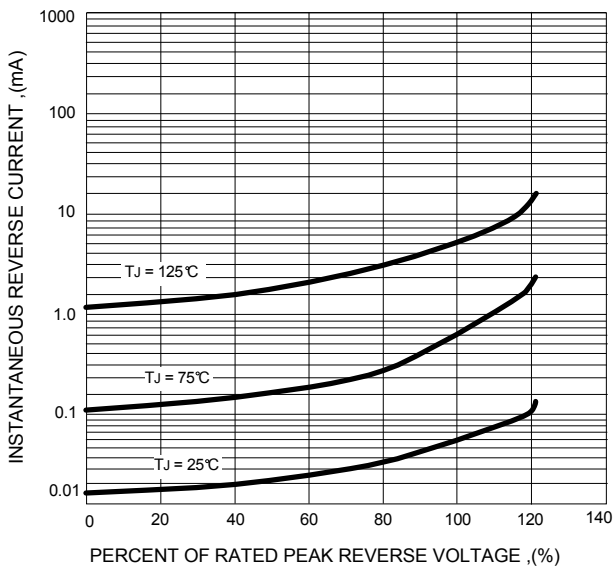


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

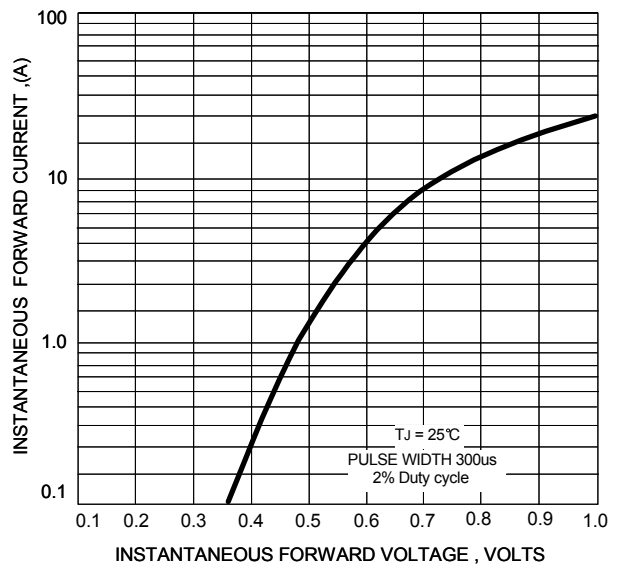


FIG.5 - TYPICAL JUNCTION CAPACITANCE

