YEA SHIN TECHNOLOGY CO., LTD

MBR2020CT THRU MBR20200CT

20 AMPERE SCHOTTKY BARRIER RECTIFIERS

VOLTAGE - 20 to 200 Volts CURRENT - 20.0 Amperes

FEATURES

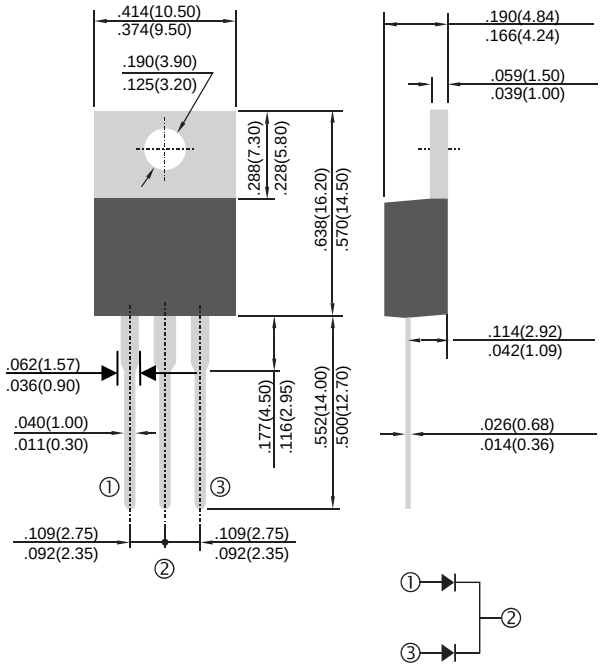
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 utilizing Flame Retardant Epoxy Molding Compound
- Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency
- Low forward voltage, high current capability
- High surge capacity
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

MECHANICAL DATA

- Case: TO-220AB molded plastic
- Terminals: Lead, solderable per MIL-STD-202, Method 208
- Polarity: As marked

Mounting Position: Any

TO-220AB Unit:inch(mm)



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%.

SYMBOL	MBR 2020CT	MBR 2030CT	MBR 2040CT	MBR 2045CT	MBR 2050CT	MBR 2060CT	MBR 2080CT	MBR 20100CT	MBR 20150CT	MBR 20200CT	UNIT
Maximum Recurrent Peak Reverse Volt	20	30	40	45	50	60	80	100	150	200	V
Maximum RMS Volt	14	21	28	31.5	35	42	56	70	105	140	V
Maximum DC Blocking Volt	20	30	40	45	50	60	80	100	150	200	V
Maximum Average Forward Rectified Current at TC=90°C	20.0										A
Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load(JEDEC method)	200								150		A
Maximum Forward Voltage at 10.0A per element	0.55				0.75		0.85		0.95	0.99	V
Maximum DC Reverse Current at Rated TC=25 °C	0.1								0.025		mA
DC Blocking Voltage per element TC=100°C	100								7		
Typical Thermal Resistance (Note 1) RθJA	60										°C /W
Typical Thermal Resistance (Note 2) RθJC	5										°C /W
Typical Junction Capacitance (Note 3) Cj	200										pF
Operating and Storage Temperature Range (Tj & Tstg)	-55 to +150										°C

NOTES:
1.Thermal Resistance Junction to Ambient
2.Thermal Resistance Junction to Case
3.Mea sured at 1.0MHz and applied reverse voltage of 4.0 volts

DEVICE CHARACTERISTICS

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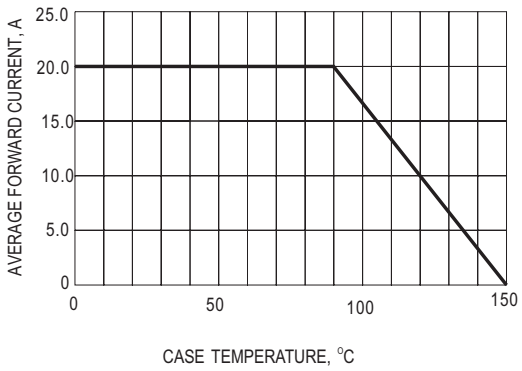

Fig.1- FORWARD CURRENT DERATING CURVE

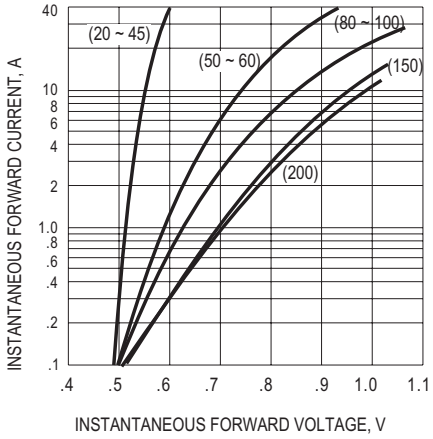

Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

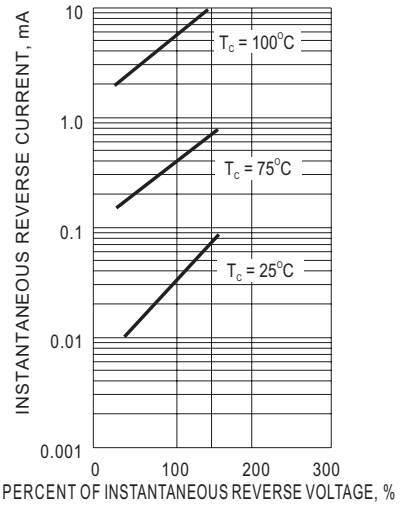

Fig.3- TYPICAL REVERSE CHARACTERISTIC

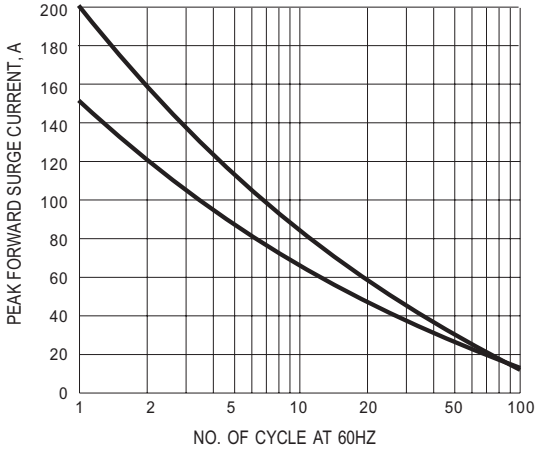

Fig.4- MAXIMUM NON-REPETITIVE SURGE CURRENT

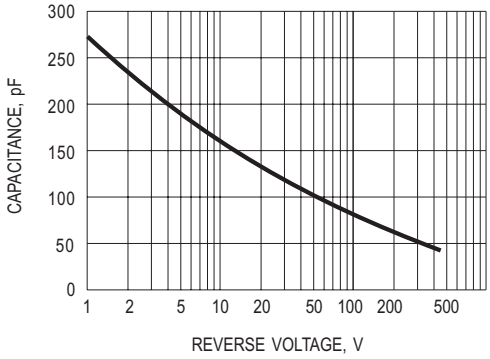

Fig.5- TYPICAL JUNCTION CAPACITANCE