YEA SHIN TECHNOLOGY CO., LTD

MBR4040CD2 THRU MBR40200CD2

40A Schottky Barrir Rectifiers

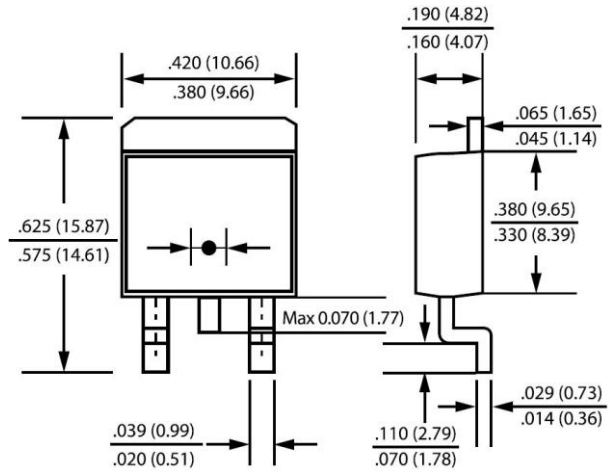
Voltage - 40 to 200 Volts Current – 40 Amperes

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
  Flame Retardant Epoxy Molding Compound.
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency.
- High current capability
- For use in low voltage, high frequency inverters free wheeling, and polarlity protection applications.
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- Case: TO-263AB molded plastic
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any



TO-263AB

Dimensions in inches and (millimeters)

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 current by 20%

PARAMETER	SYMBOL	MBR 4040CD2	MBR 4045CD2	MBR 4050CD2	MBR 4060CD2	MBR 4080CD2	MBR 4090CD2	MBR 40100CD2	MBR 40150CD2	MBR 40200CD2	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage	V_{RMS}	28	31.5	35	42	56	63	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	40	45	50	60	80	90	100	150	200	V
Maximum Average Forward Current	$I_{F(AV)}$	40									A
Peak Forward Surge Current : 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200									A
Maximum Forward Voltage 20A per leg	V_F	0.7		0.8		0.85			0.92		V
Maximum DC Reverse Current T_J=25 °C at Rated DC Blocking Voltage T_J=125°C	I_R	0.1 20				0.05 20					mA
Typical Thermal Resistance	$R_{\theta JC}$	2.2									°C / W
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55 to + 150							-55 to + 175		°C

DEVICE CHARACTERISTICS
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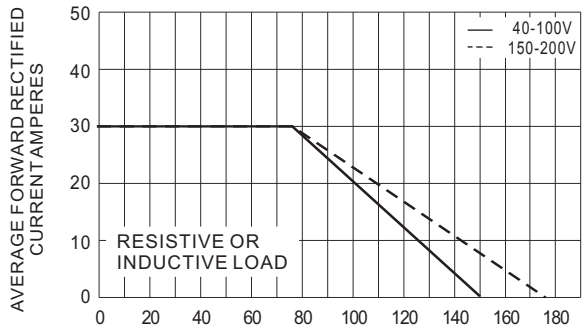

Fig.1- FORWARD CURRENT DERATING CURVE

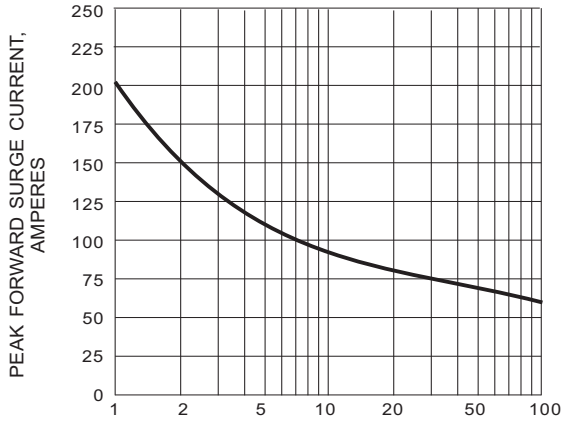

Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

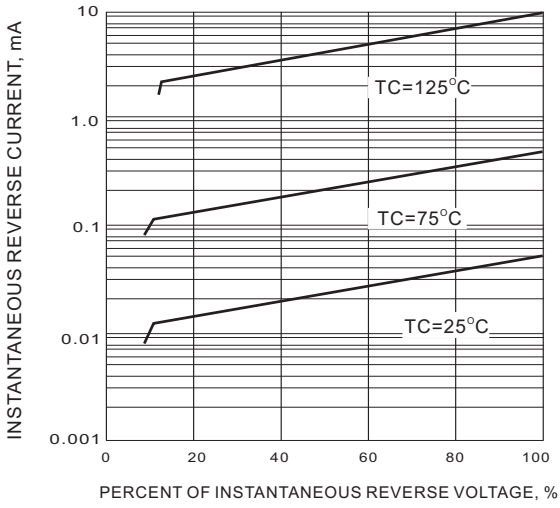

Fig.3- TYPICAL REVERSE CHARACTERISTIC

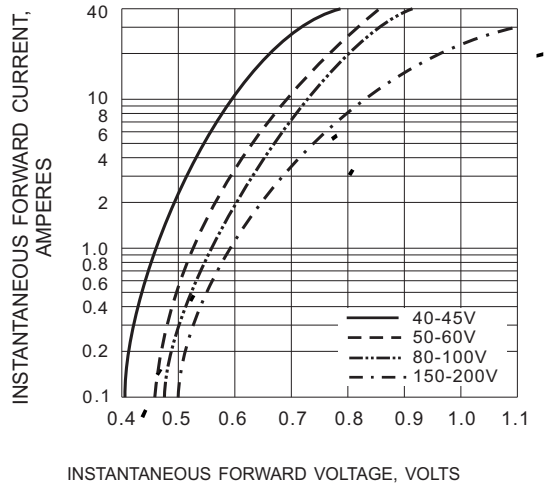

Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC