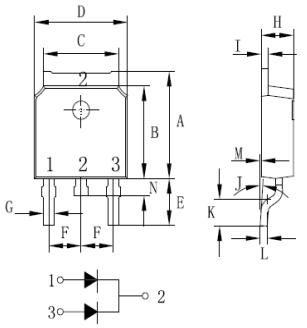
MBR2040CD~MBR20200CD

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 40 to 200 Volts Forward Current - 20.0 Amperes

TO-252 (DPAK)



TO-252 (DPAK)
Unit:mm

DIM	MIN	MAX
A	6.85	7.25
B	5.90	6.30
C	5.13	5.53
D	6.40	6.80
E	2.90	3.30
F	2.19	2.39
G	0.45	0.85
H	2.20	2.40
I	0.41	0.61
J	0°	8°
K	1.45	1.85
L	0.41	0.61
M	0.00	0.12
N	0.60	1.00

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

MECHANICAL DATA

- Case: TO-252AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any

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 2040CD	MBR 2045CD	MBR 2050CD	MBR 2060CD	MBR 2080CD	MBR 2090CD	MBR 20100CD	MBR 20150CD	MBR 20200CD	UNITS
Maximum Recurrent Peak Reverse Voltag	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 (See fig.1)	$I_{F(AV)}$	20									A
Peak Forward Surge Current :8.3ms single half si ne- wave superimposed on rated load(JEDEC	I_{FSM}	100									A
Maximum Forward Voltage at 10A, 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	0.05 20									mA
Typical Thermal Resistance	$R_{\theta JC}$	2									°C / W
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-50 to + 150							-55to +175		°C

RATINGS AND CHARACTERISTIC CURVES MBR2040CD THRU MBR20200CD

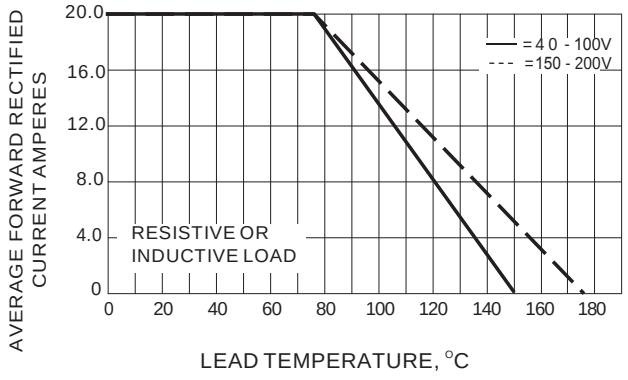


Fig.1- FORWARD CURRENT DERATING CURVE

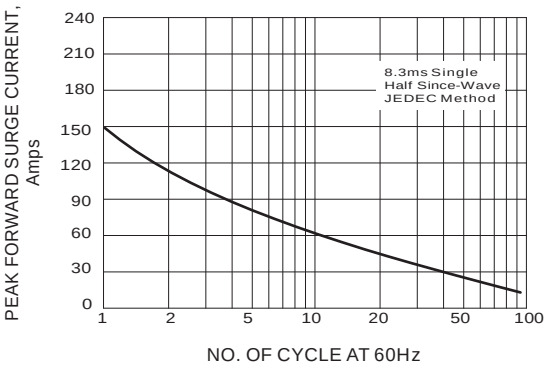


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

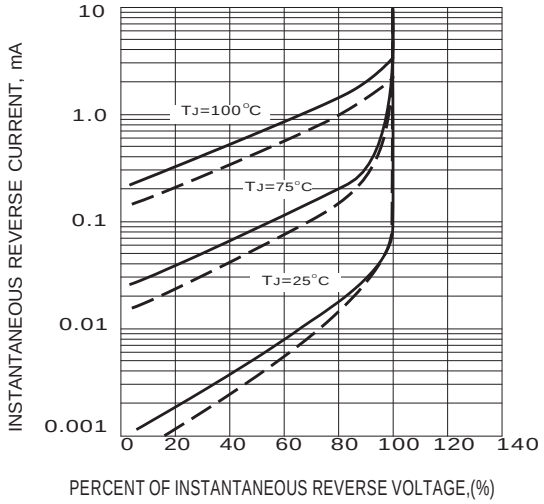


Fig.3- TYPICAL REVERSE CHARACTERISTICS

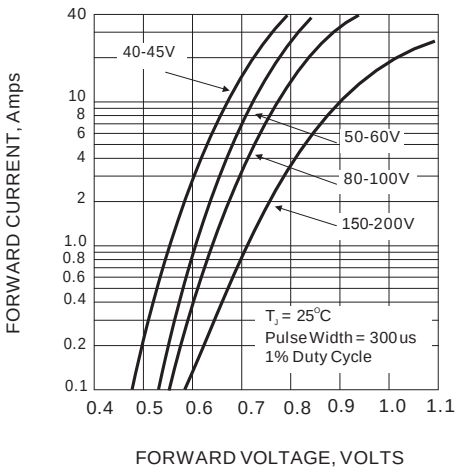


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!