Elektronische Bauelemente

MBR4040~MBR40200

Voltage 40V~ 200V

40 Amp Schottky Barrier Rectifiers

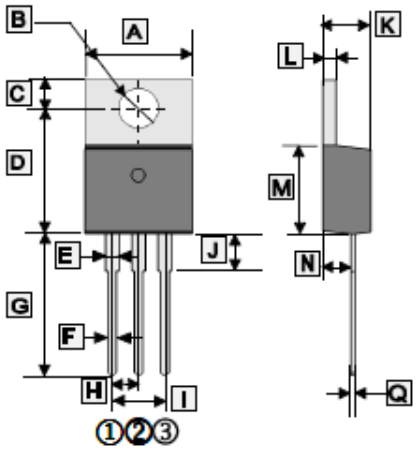
RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

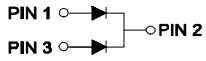
FEATURES

- 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

TO-220J



REF.	Millimeter Min.	Millimeter Max.	REF.	Millimeter Min.	Millimeter Max.
A	9.57	10.57	I	4.68	5.48
B	3.54	4.14	J	2.95	3.96
C	2.54	2.94	K	4.27	4.87
D	11.86	13.26	L	1.07	1.47
E	0.97	1.57	M	8.0	10.0
F	0.51	1.11	N	2.03	2.92
G	12.7	13.8	Q	0.30	0.65
H	2.540 TYP.				



MECHANICAL DATA

- Case: TO-220J Molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: As Marked
- Mounting position: Any

ORDER INFORMATION

Part Number	Type
MBR4040~MBR40200	Lead (Pb)-free
MBR4040-C~MBR40200-C	Lead (Pb)-free and Halogen-free

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameter		Symbol	Part Number MBR 4040	MBR 4060	MBR 40100	MBR 40150	MBR 40200	Unit
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	40	60	100	150	200	V
Maximum RMS Voltage		V_{RMS}	28	42	70	105	140	V
Maximum DC Blocking Voltage		V_{DC}	40	60	100	150	200	V
Maximum Average Forward Current		$I_{F(AV)}$	40					A
Peak Forward Surge Current, 8.3ms 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 @Rated DC Blocking Voltage	T_J=25°C	I_R	0.1		0.05			mA
	T_J=125°C		20		20			
Typical Thermal Resistance		$R_{\theta JC}$	2.2					°C/W
Operating & Storage Temperature		T_J ,T_{STG}	-55~150					°C

RATINGS AND CHARACTERISTIC CURVES

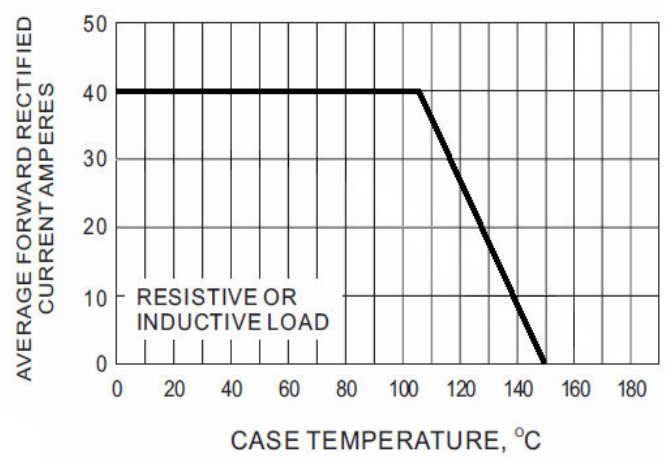


Fig.1- FORWARD CURRENT DERATING CURVE

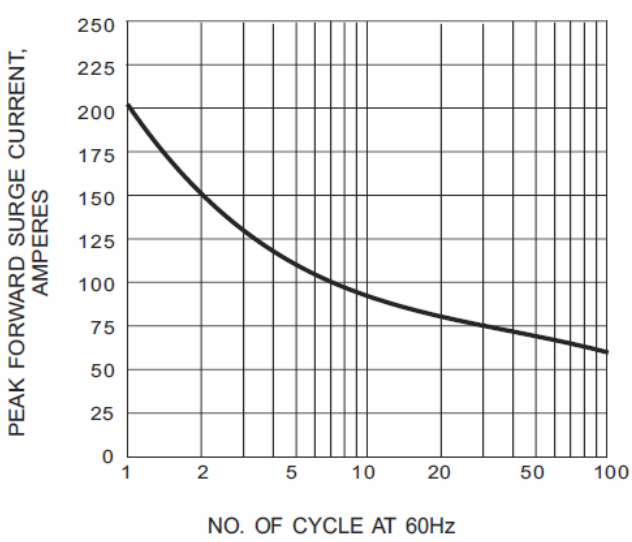


Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

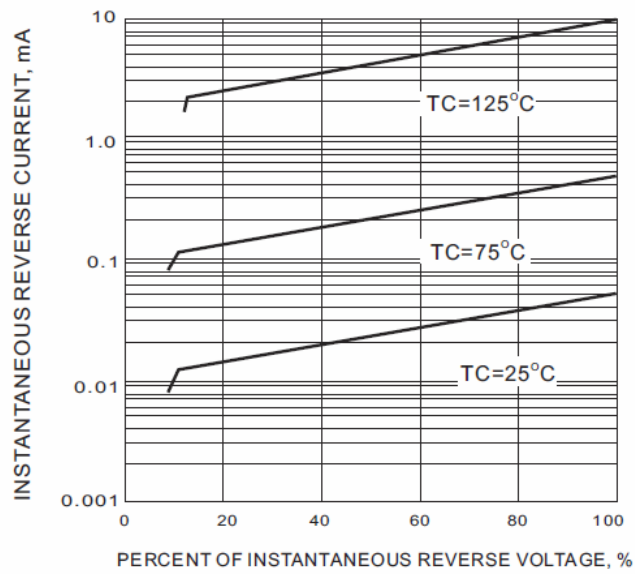


Fig.3- TYPICAL REVERSE CHARACTERISTIC

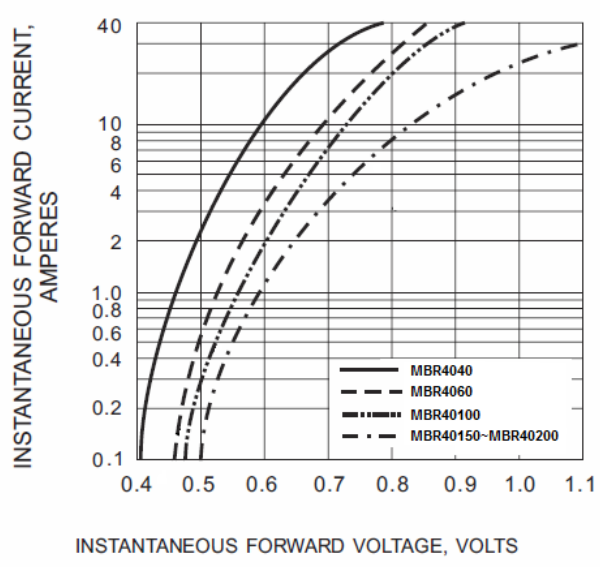


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC