Elektronische Bauelemente

MBR2040~MBR20200

Voltage 40V~200V

20Amp Schottky Barrier Rectifiers

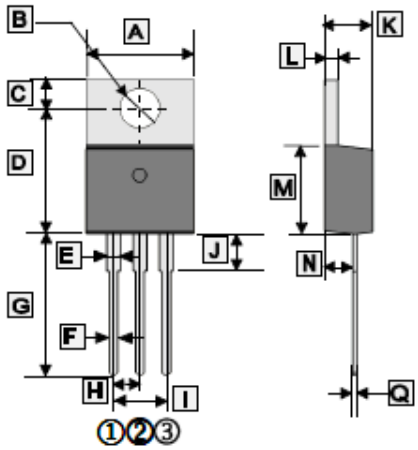
RoHS Compliant Product

A suffix of "-C" specifies halogen 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
- For Use In Low Voltage, High Frequency Inverters
  Free Wheeling, and Polarlity Protection Applications

TO-220J



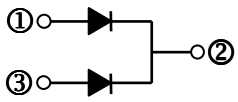
REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	9.57	10.57	I	4.68	5.48
B	3.54	4.14	J	2.95	3.96
C	2.54	2.94	K	4.27	4.87
D	11.86	13.26	L	1.07	1.47
E	0.97	1.57	M	8.0	10.0
F	0.51	1.11	N	2.03	2.92
G	12.7	13.8	Q	0.30	0.65
H	2.540 TYP.				

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
MBR2040~MBR20200	Lead (Pb)-free
MBR2040-C~MBR20200-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, de-rate current by 20%.)

Parameter		Symbol	Part Number						Unit
			MBR 2040	MBR 2045	MBR 2060	MBR 20100	MBR 20150	MBR 20200	
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	40	45	60	100	150	200	V
Maximum RMS Voltage		V_{RMS}	28	31.5	42	70	105	140	V
Maximum DC Blocking Voltage		V_{DC}	40	45	60	100	150	200	V
Maximum Average Forward Current (see fig.1)		$I_{F(AV)}$	20						A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)		I_{FSM}	150						A
Maximum Forward Voltage @10A 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	0.05						mA
	T_J=125°C		20						
Typical Thermal Resistance		$R_{\theta JC}$	2						°C/W
Operating & Storage Temperature		T_J , T_{STG}	-50~150						°C

RATINGS AND CHARACTERISTIC CURVES

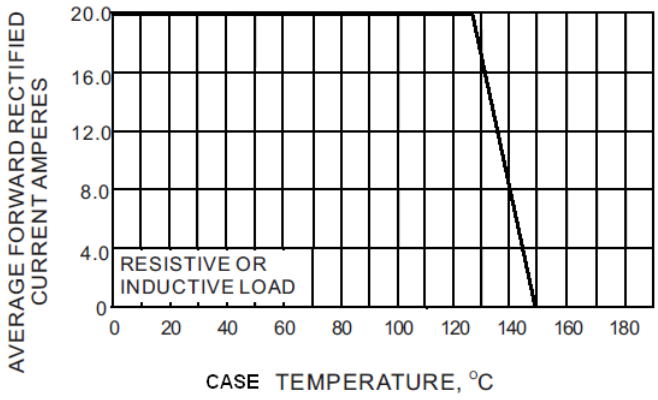


Fig.1- FORWARD CURRENT DERATING CURVE

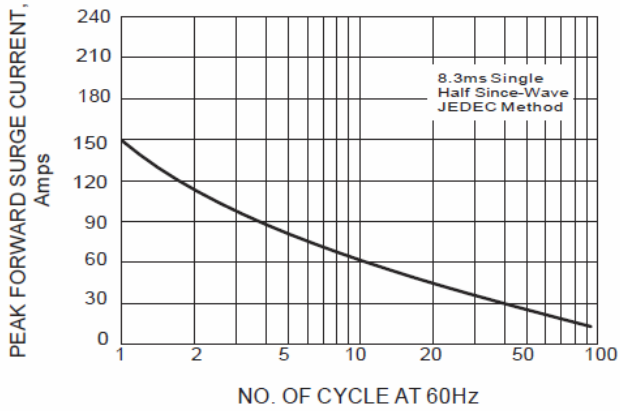


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

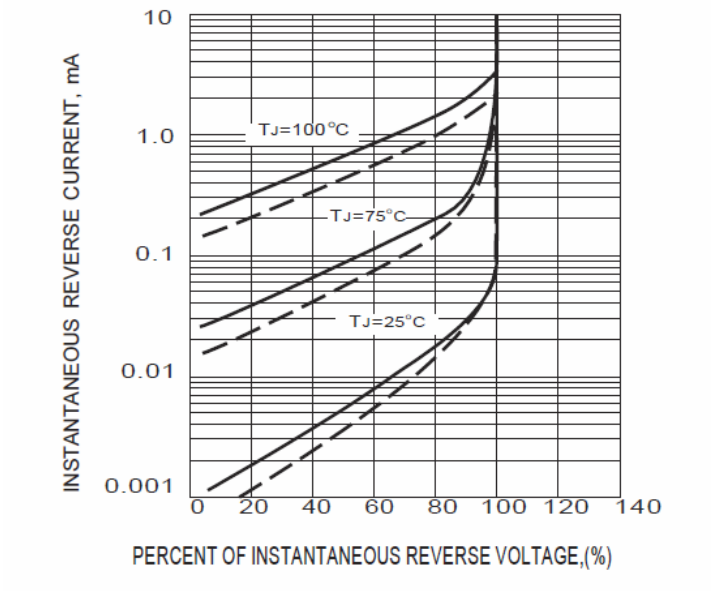


Fig.3- TYPICAL REVERSE CHARACTERISTICS

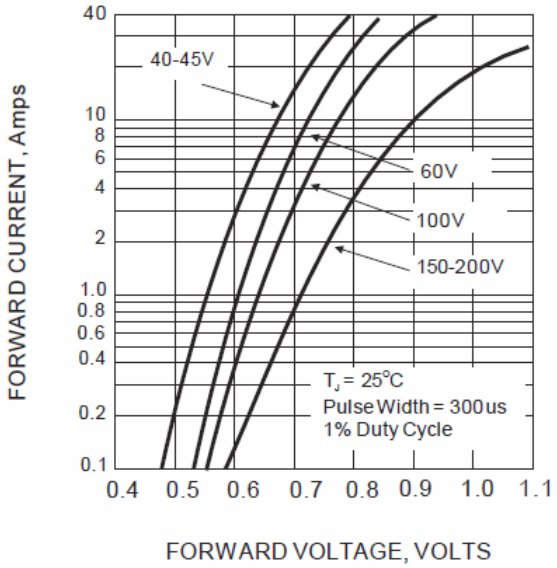


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS