

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

MECHANICAL DATA

- Case: TO-252(D-Pack) Molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As Marked
- Mounting position: Any

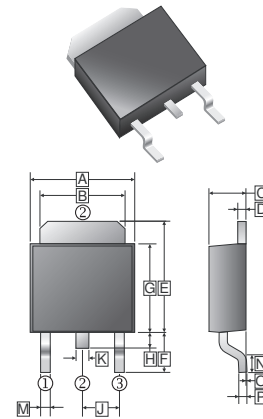
PACKAGE INFORMATION

Package	MPQ	Leader Size
TO-252	2.5K	13' inch

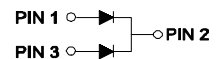
ORDER INFORMATION

Part Number	Type
MBR1040D1~MBR10200D1	Lead (Pb)-free
MBR1040D1-C~MBR10200D1-C	Lead (Pb)-free and Halogen-free

TO-252(D-PACK)



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.35	6.9	J	2.3 REF.	
B	4.95	5.53	K	0.89 REF.	
C	2.1	2.5	M	0.45	1.14
D	0.41	0.9	N	1.55 Typ.	
E	6	7.5	O	0	0.13
F	2.90 REF.		P	0.58 REF.	
G	5.4	6.4			
H	0.6	1.2			



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%.)

or capacitive load, dc rate current by 25%.)

Parameter		Symbol	Part Number					Unit
			MBR 1040D1	MBR 1060D1	MBR 10100D1	MBR 10150D1	MBR 10200D1	
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 see fig.1		I _{F(AV)}	10					A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load(JEDEC method)		I _{FSM}	100					A
Maximum Forward Voltage @5A per leg		V _F	0.7	0.8	0.85	0.92		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _J =25°C	I _R	0.05					mA
	T _J =125°C		20					
Typical Thermal Resistance		R _{θJC}	10					°C/W
Operating & Storage Temperature		T _J , T _{STG}	-55~150					°C

RATINGS AND CHARACTERISTIC CURVES

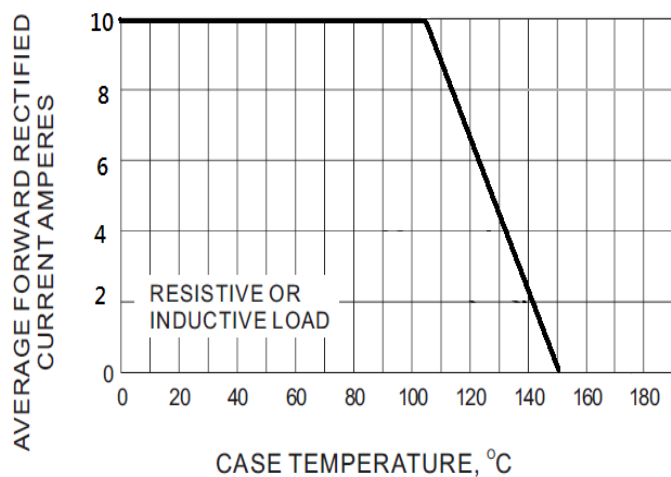


Fig.1- FORWARD CURRENT DERATING CURVE

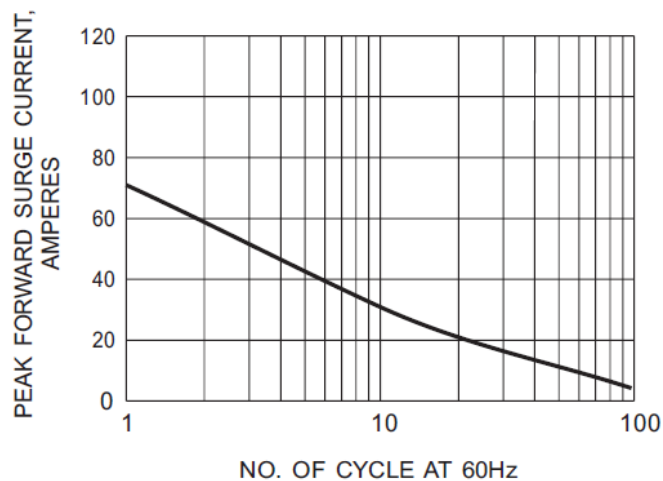


Fig.2- MAXIMUM NON - REPETITIVE FORWARD SURGE CURRENT

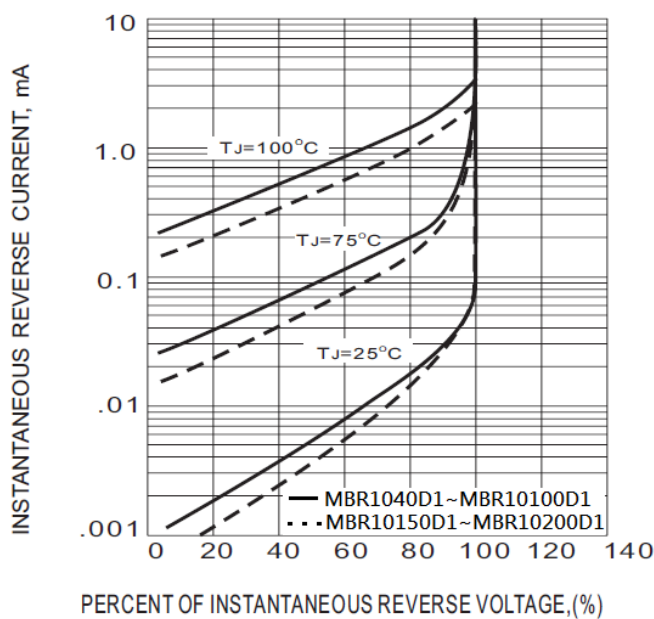


Fig.3- TYPICAL REVERSE CHARACTERISTICS

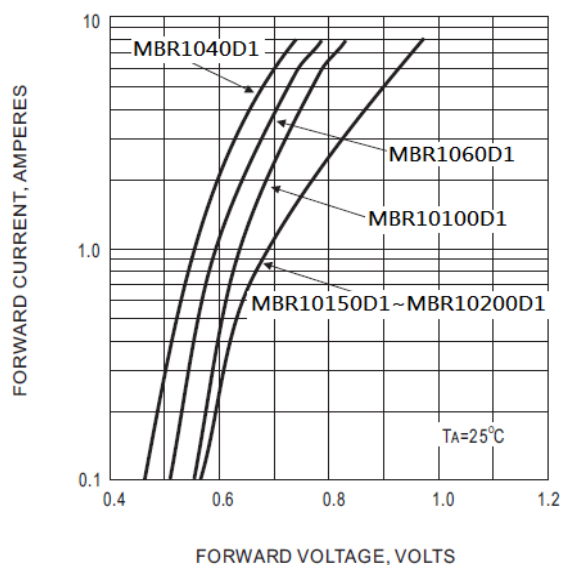


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC