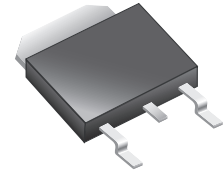


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

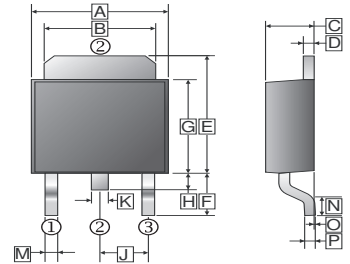
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Extremely Low V_F
- Low Stored Charge Majority Carrier Conduction
- Low Power Loss, High Efficiency

TO-252(D-PACK)



MECHANICAL DATA

- Case: TO-252(D-Pack) Molded plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: As Marking



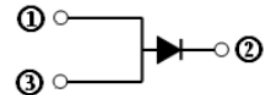
PACKAGE INFORMATION

Package	MPQ	Leader Size
TO-252	2.5K	13 inch

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			

ORDER INFORMATION

Part Number	Type
MBR1020DS1~MBR10200DS1	Lead (Pb)-free
MBR1020DS1-C~MBR10200DS1-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 1020DS1	MBR 1040DS1	MBR 1060DS1	MBR 10100DS1	MBR 10150DS1	MBR 10200DS1	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	40	60	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	28	42	70	105	140	
Maximum DC Blocking Voltage	V_{DC}	20	40	60	100	150	200	
Maximum Average Forward Current	I_F	10						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	V_F	0.6	0.7	0.85	0.9	0.92	V	
Maximum DC Reverse Current @DC Blocking Voltage	$T_J=25^\circ C$	0.2						mA
	$T_J=100^\circ C$	20						
Typical Thermal Resistance	$R_{\theta JC}$	6						°C/W
Operating & Storage Temperature	T_J, T_{STG}	-55~150						°C

Note:

1. Surface Mounted on 2.5cm x 2.5cm x 0.5mm Copper pad area.

RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

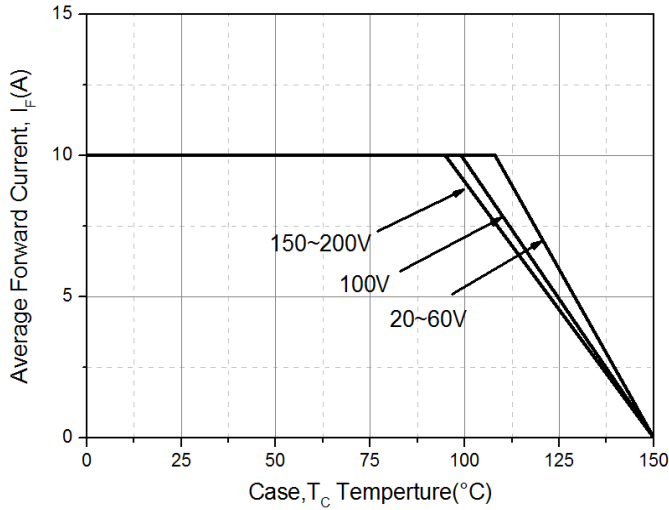


FIG.2-TYPICAL FORWARD CHARACTERISTICS

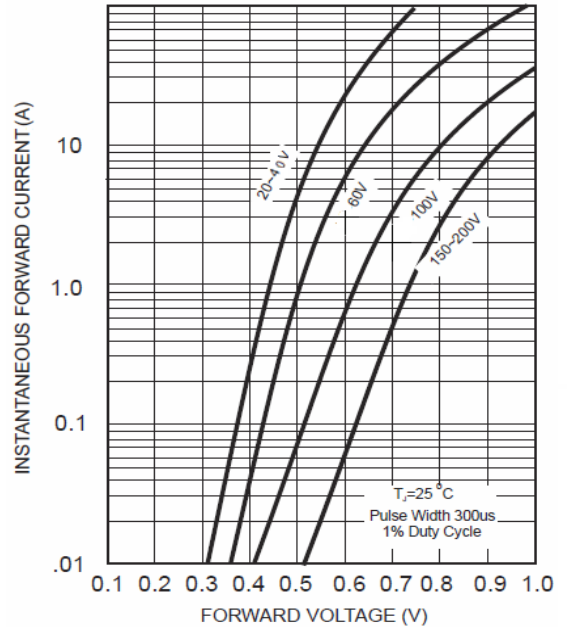


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

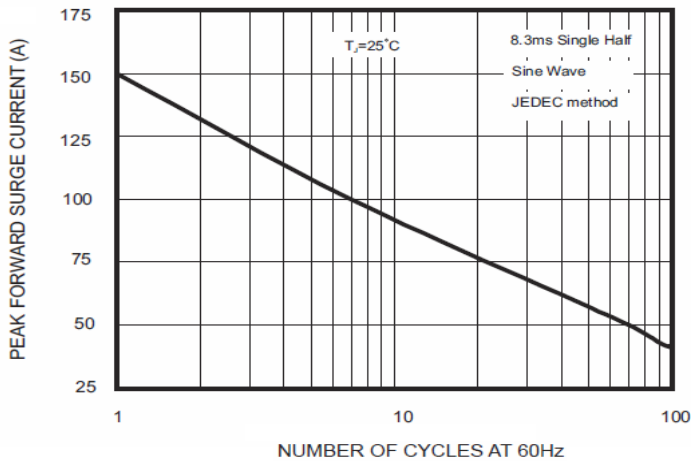


FIG.4- TYPICAL REVERSE CHARACTERISTICS

