MBR20100L

Low VF Schottky Barrier Rectifiers

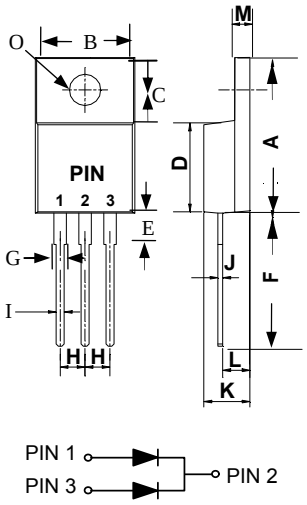
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O.
  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-220AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any

TO- 220AB



TO-220AB		
DIM.	MIN.	MAX.
A	15.10	15.90
B	9.90	10.40
C	6.35	6.65
D	8.60	9.40
E	3.60	4.40
F	13.00	——
G	1.10	1.40
H	2.35	2.55
I	0.45	0.95
J	0.35	0.55
K	4.35	4.75
L	2.55	3.15
M	1.25	1.45
O	∅3.65	∅3.95
All Dimensions in millimeter		

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	VALUE	UNIT
Maximum repetitive peak reverse voltage		V_{RRM}	100	V
Maximum rms voltage		V_{RMS}	70	V
Maximum average forward rectified current	per device per diode	$I_{F(AV)}$	20 10	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	per diode	I_{FSM}	150	A
Typical junction capacitance (V_R=4V, f=1MHz)		C_J	620	pF
Typical thermal resistance per diode	(Note 1)	$R_{\Theta JC}$	2	°C/W
Operating junction temperature range		T_J	-55 to + 150	°C
Storage temperature range		T_{STG}	-55 to + 150	°C

Note : 1. Mounted on infinite heatsink.

ELECTRICAL CHARACTERISTICS(T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS		MIN.	TYP.	MAX.	UNIT
Breakdown voltage per diode	V_{BR}	I_R=0.5mA		100	-	-	V
Instantaneous forward voltage per diode	V_F	I_F=3A I_F=5A I_F=10A	T_J=25°C	- - -	0.50 0.58 0.74	- - 0.78	V
		I_F=3A I_F=5A I_F=10A	T_J=125°C	- - -	0.45 0.54 0.68	- - -	V
Reverse current per diode	I_R	V_R=70V		-	50	-	μA
		V_R=100V	T_J=25°C T_J=125°C	- -	- 7.2	100 -	μA mA

RATING AND CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

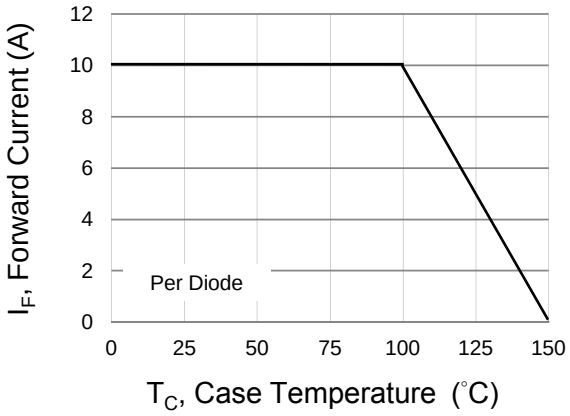


Fig.2 Typical Junction Capacitance

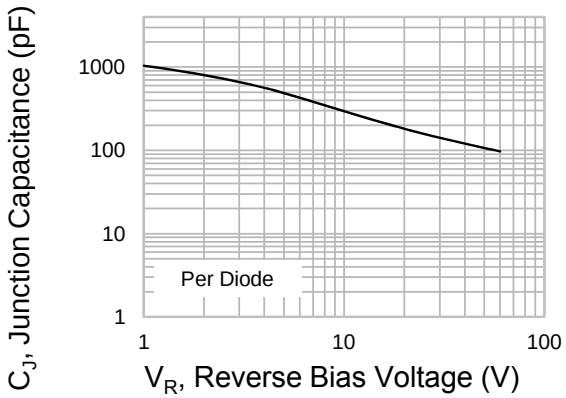


Fig.3 Typical Reverse Characteristics

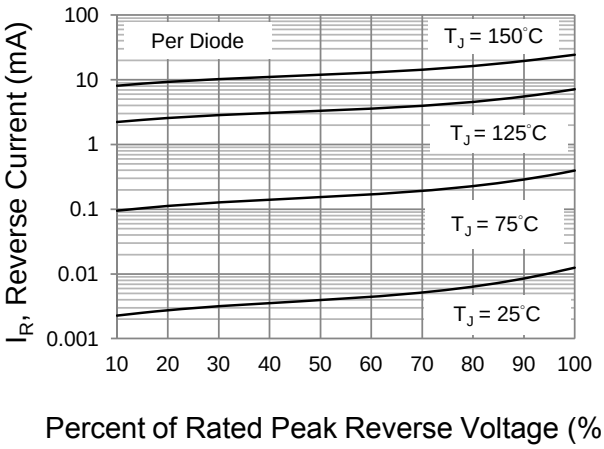


Fig.4 Typical Forward Characteristics