



MBR40100L

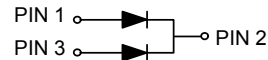
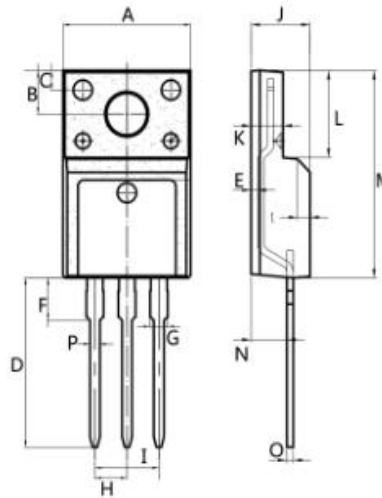
Low VF Schottky Barrier Rectifiers

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 polarity protection applications.
- Lead free in comply with EU RoHS

MECHANICAL DATA

- Case: ITO-220AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any



ITO- 220AB

Dim.	Min.	Max.
A	9.95	10.25
B	2.95	3.25
C	1.25	1.45
D	12.95	13.25
E	0.50	0.65
F	2.80	3.3
G	1.30	1.45
H	Typ 2.54	
I	Typ 5.08	
J	4.50	4.75
K	2.50	2.65
L	6.35	6.55
M	15.4	16.0
N	2.75	3.05
O	0.48	0.52
P	0.76	0.84

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%

Characteristics		Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	100	V
Working Peak Reverse Voltage		V_{RWM}	100	V
Maximum DC Blocking Voltage		V_{DC}	100	V
Maximum Average Forward Rectified Current	Per Leg	I_O	20	A
	Total		40	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave		I_{FSM}	320	A
Operating Temperature Range		T_J	-50 to +150	°C
Storage Temperature Range		T_{STG}	-50 to +150	°C
Typical Thermal Resistance (Note1)		$R_{\theta JC}$	2	°C/W

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.



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

Characteristics		Symbol	Value		Unit
Forward Voltage Drop(Note2)		V_F	Typ.	Max.	V
at $I_F=5A$	TA=25°C		0.45	-	
	TA=125°C		0.37	-	
at $I_F=10A$	TA=25°C		0.51	-	
	TA=125°C		0.48	-	
at $I_F=20A$	TA=25°C		0.62	0.72	
	TA=125°C		0.60	-	
Maximum Reverse Current at $V_R=100V$		I_R	15	90	μA
			14	-	mA

Note2:Pulse test: 300 μs pulse width, 1 % duty cycle

RATING AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

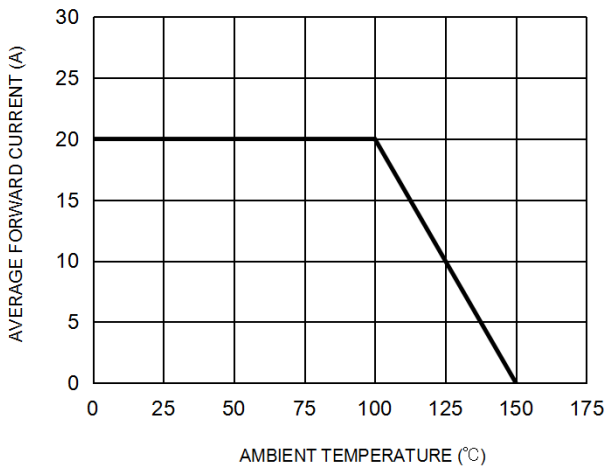


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

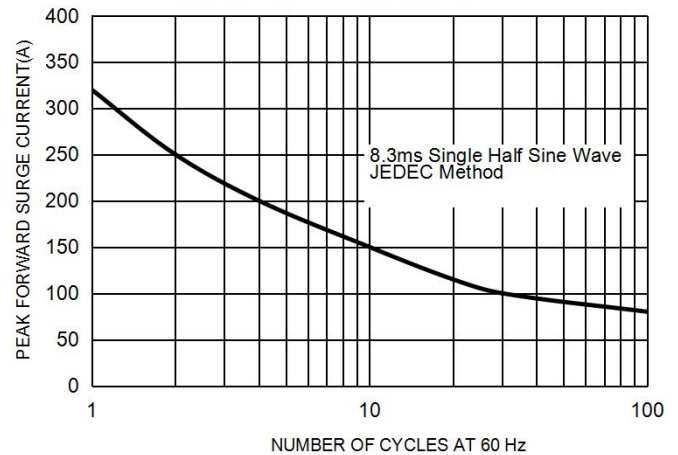


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

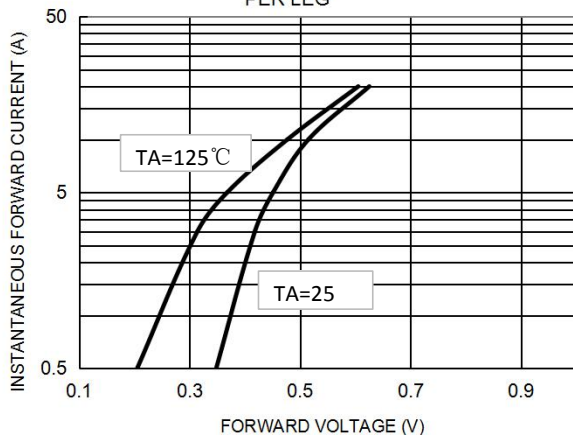


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

