B L GALAXY ELECTRICAL

MBR830 - - - MBR8100

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE: 30 - 100 V
CURRENT: 8.0 A

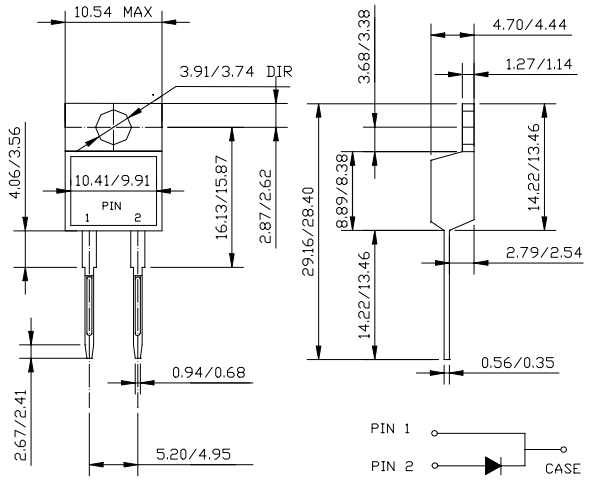
FEATURES

- ◇ High surge capacity.
- ◇ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- ◇ Metal silicon junction, majority carrier conduction.
- ◇ High current capacity, low forward voltage drop.
- ◇ Guard ring for over voltage protection.

MECHANICAL DATA

- ◇ Case:JEDEC TO-220AC,molded plastic body
- ◇ Terminals:Leads, solderable per MIL-STD-750, Method 2026
- ◇ Polarity: As marked
- ◇ Position: Any
- ◇ Weight: 0.064 ounces,1.81 gram

TO-220AC



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase,half wave,60Hz,resistive or inductive load.For capactive load,derate current by 20%.

		MBR 830	MBR 835	MBR 840	MBR 845	MBR 850	MBR 860	MBR 880	MBR 8100	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	30	35	40	45	50	60	80	100	V
Maximum RMS Voltage	V_{RMS}	21	25	28	32	35	42	56	70	V
Maximum DC blocking voltage	V_{DC}	30	35	40	45	50	60	80	100	V
Maximum average forw ard total device rectified current @T_C = 125°C	$I_{F(AV)}$	8.0								A
Peak forw ard surge current 8.3ms single half sine-w ave superimposed on rated load	I_{FSM}	150								A
Maximum forw ard voltage (Note 1)	V_F	(I_F=8.0A,T_C=125℃) 0.57				0.70		-		V
		(I_F=8.0A,T_C=25 ℃) 0.70				0.80		0.85		
		(I_F=16A,T_C=25℃) 0.84				0.95		-		
Maximum reverse current @T_C=25℃	I_R	0.1						0.5		m A
at rated DC blocking voltage @T_C=125℃		15						50		
Maximum thermal resistance (Note 2)	$R_{\theta JC}$	3.0								K/W
Operating junction temperature range	T_J	- 55 ---- + 150								℃
Storage temperature range	T_{STG}	- 55 ---- + 150								℃

NOTE: 1. Pulse test:300μs pulse width,1% duty cycle.
2. Thermal resistance from junction to case.

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FIG.1 -- FORWARD CURRENT DERATING CURVE

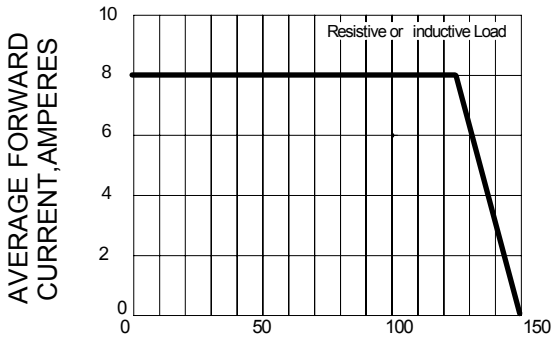

FIG.2 -- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

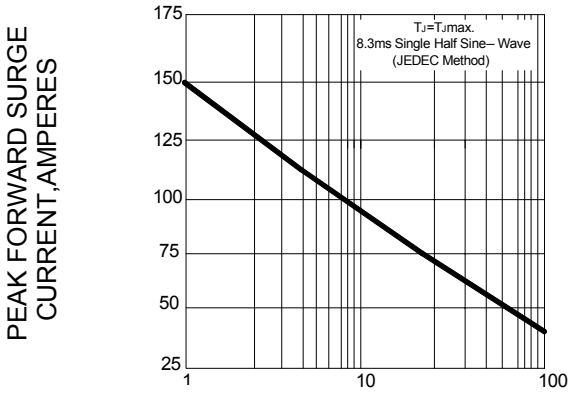

FIG.3 -- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC PERLEG

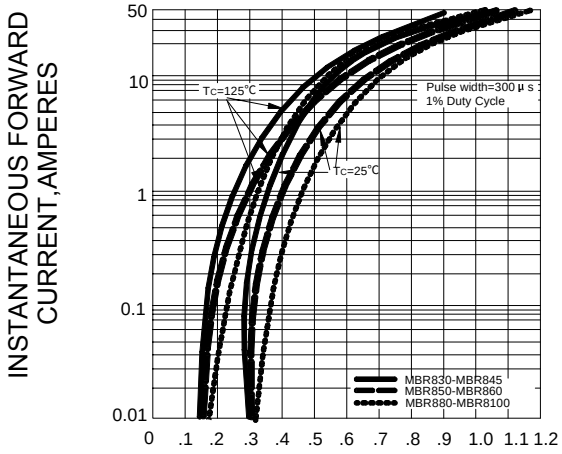

FIG.4 -- TYPICAL REVERSE CHARACTERISTICS