

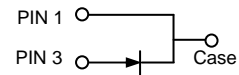
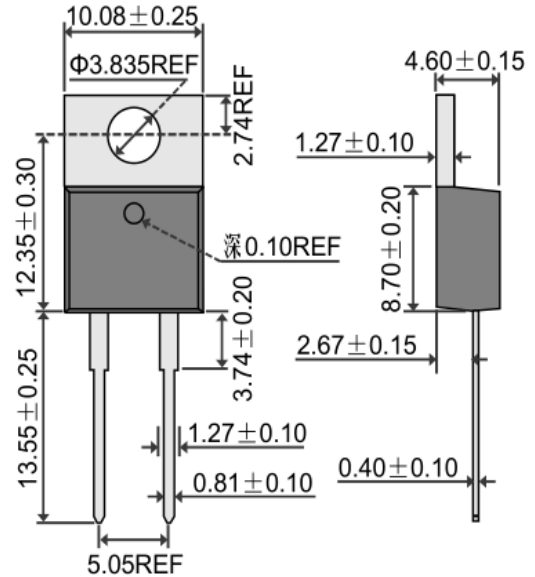
Features

- Power Schottky Barrier Chip
- Guard Ring for Transient Protection
- Low Forward Voltage Drop
- Low Power Loss, High Efficiency
- High Surge Current Capability
- Epoxy Meets UL 94V-0 Classification
- Ideally Suited for Use in High Frequency SMPS, Inverters and As Free Wheeling Diodes

Mechanical Data

- Case: TO-220A, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 1.9 grams (approx.)
- Mounting Position: Any
- Mounting Torque: 0.6 N.m Max.
- **Lead Free: For RoHS / Lead Free Version**

TO-220AC

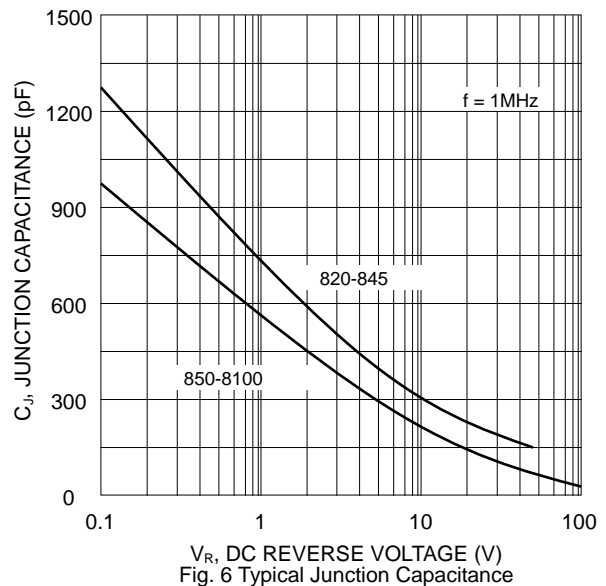
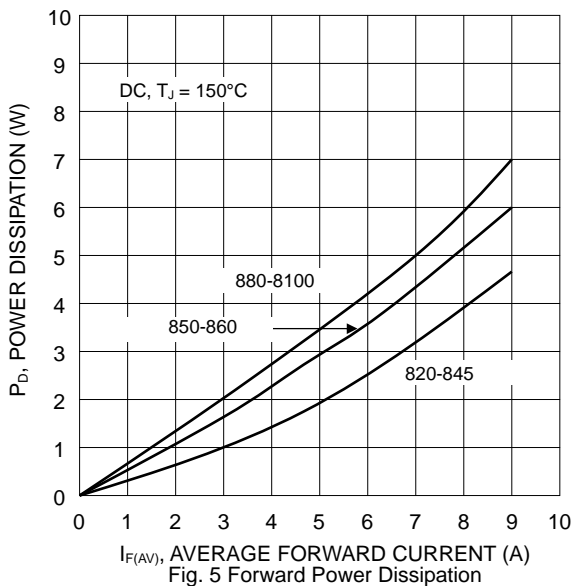
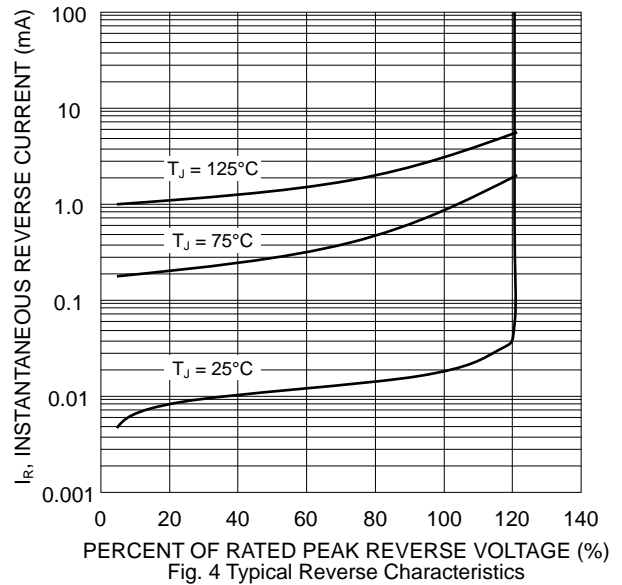
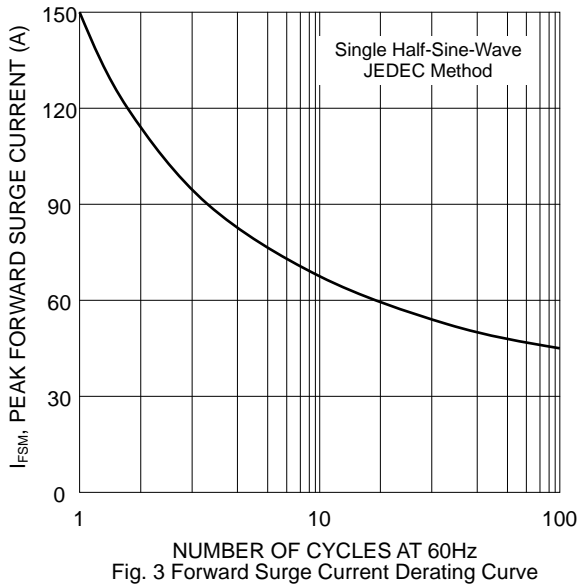
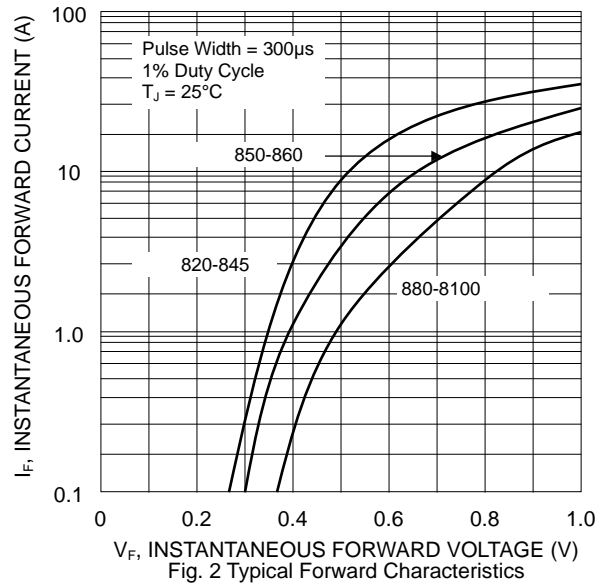
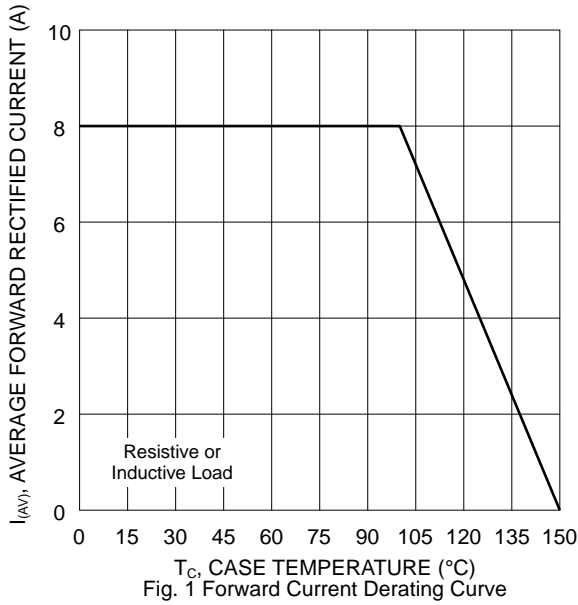


Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

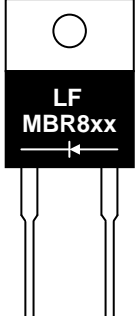
Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	MBR 820	MBR 830	MBR 840	MBR 845	MBR 850	MBR 860	MBR 880	MBR 8100	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	20	30	40	45	50	60	80	100	V
Working Peak Reverse Voltage	V _{VRM}									
DC Blocking Voltage	V _R									
RMS Reverse Voltage	V _{R(RMS)}	14	21	28	32	35	42	56	70	V
Average Rectified Output Current @T _C = 100°C	I _O	8.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	150								A
Forward Voltage @I _F = 8.0A	V _{FM}	0.55			0.75		0.85			V
Peak Reverse Current @T _J = 25°C	I _{RM}	0.2								mA
At Rated DC Blocking Voltage @T _J = 100°C		20								
Typical Junction Capacitance (Note 1)	C _J	450				350				pF
Thermal Resistance Junction to Ambient	R _{JA}	73								°C/W
Thermal Resistance Junction to Case	R _{JC}	3.0								
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150								°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



MARKING INFORMATION



MBR8xx = Device Number
 xx = 20, 30, 40, 45, 50, 60, 80 or 100
 Polarity = As Marked on Body

PACKAGING INFORMATION

BULK

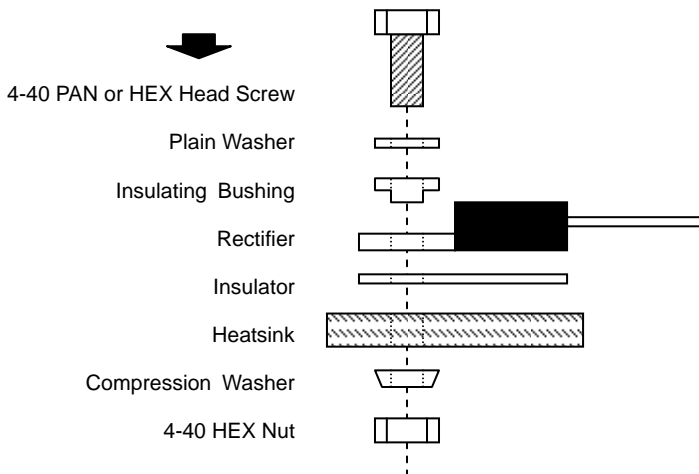
Tube Size L x W x H (mm)	Quantity (PCS)	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
525 x 31 x 6	50	558 x 150 x 40	1,000	570 x 235 x 170	5,000	11.85

RECOMMENDED SCREW MOUNTING ARRANGEMENT

Recommended isolated mounting when screw is at heatsink potential. 4-40 hardware is used.

Screw should not be tightened with any type of air-forced torque or equipment that may cause high impact on device package. The insulating bushing inside the mounting hole will insure the screw threads do not contact the metal base.

The interface should apply a layer of thermal grease or a highly conductive thermal pad for better heat dissipation.



4-40 PAN or HEX Head Screw
 Plain Washer
 Insulating Bushing
 Rectifier
 Insulator
 Heatsink
 Compression Washer
 4-40 HEX Nut