

MBR4060LPT



40.0A LOW VF SCHOTTKY BARRIER DIODE

FEATURES

- Low forward voltage
- High current capability
- High forward surge capability
- Low power losses, High efficiency
- Guarding for over voltage protection

APPLICATIONS

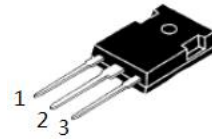
Low VF Schottky barrier rectifier are designed for high frequency, miniature switched mode power supplies such as adapters ,lighting and on-board DC/DC conerters

MECHANICAL DATA

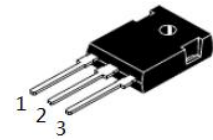
- **Case:** Molded plastic
- **Polarity:** As marked
- **Mounting Position:** Any
- **Molded Plastic:** UL Flammability Classification Rating 94V-0
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Solder bath temperature 275°C maximum,10s per JESD 22-B106

Primary Characteristic

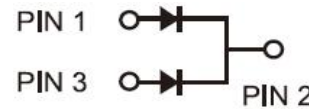
I_O	2*20A
V_{RRM}	60V
I_{FSM}	250A
V_F	0.49V
$T_{j,max}$	150°C



TO-247/PT



TO-247S/PTS



Maximum Ratings (Per Leg) at Ta=25°C unless otherwise specified

Characteristics	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	60	V
Working Peak Reverse Voltage	V_{RWM}	60	V
Maximum DC Blocking Voltage	V_{DC}	60	V
Maximum Average Forward Rectified Current	Per Leg	20	A
	Total	40	
Peak Forward Surge Current,8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	250	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.

Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics	Symbol	Value	Unit
Forward Voltage Drop(Note2)		Typ.	Max.
at $I_F=5A$	$T_A=25^\circ C$	0.38	-
	$T_A=125^\circ C$	0.28	-
at $I_F=10A$	$T_A=25^\circ C$	0.44	-
	$T_A=125^\circ C$	0.36	-
at $I_F=20A$	$T_A=25^\circ C$	0.53	0.60
	$T_A=125^\circ C$	0.49	-
Maximum Reverse Current at $V_R=60V$	$T_A=25^\circ C$	75	200
	$T_A=125^\circ C$	2.1	-

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

MBR4060LPT

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

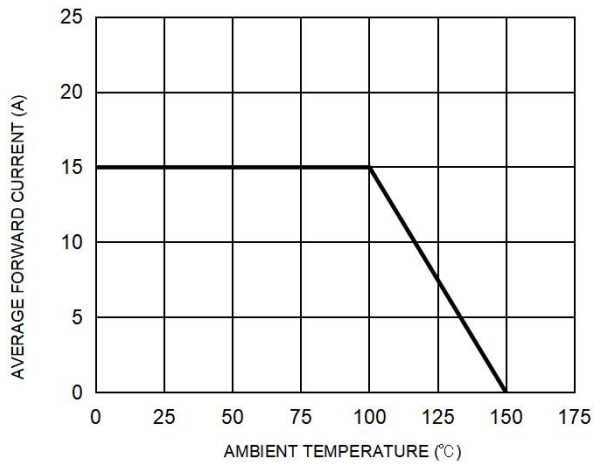


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

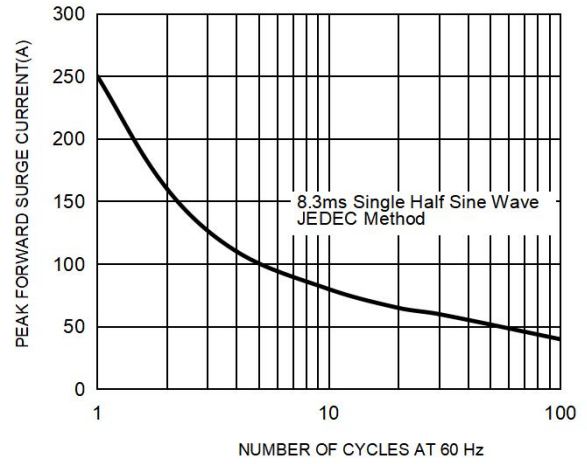


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

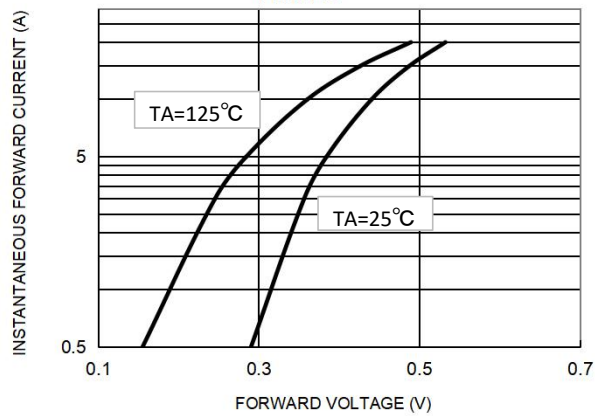
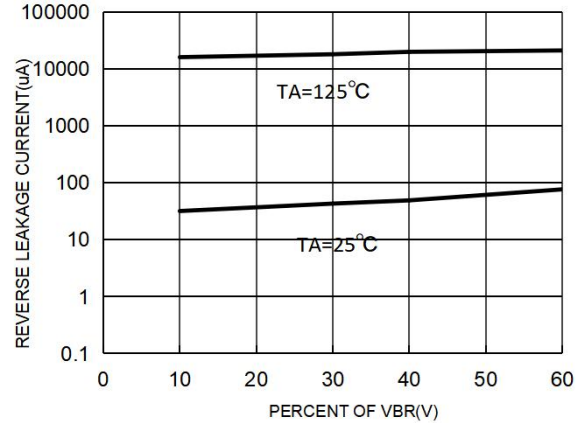
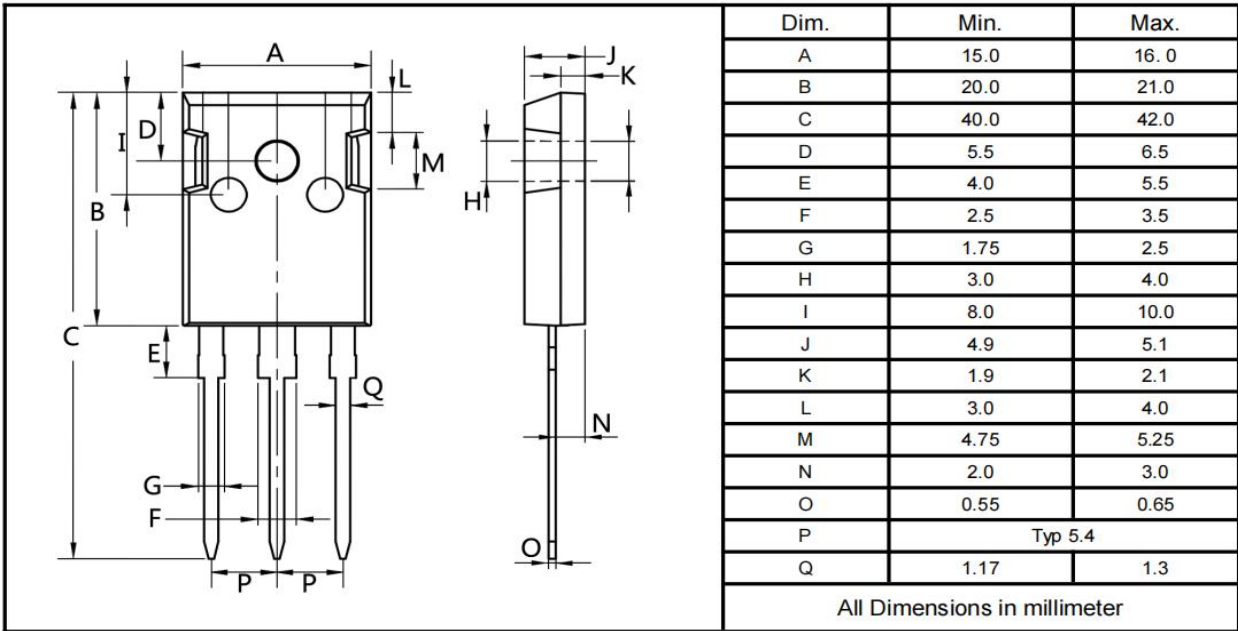


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



Package Outline Dimensions millimeters

TO-247



TO-247S

