



Reverse Voltage - 200 V

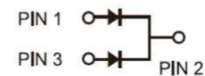
Forward Current - 60 A

FEATURES

- ◆ Low forward voltage
- ◆ High current capability
- ◆ High forward surge capability
- ◆ Low power losses. High efficiency
- ◆ Guarding for over voltage protection
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆ Case: TO-247/PT TO-247S/PST
- ◆ Solder bath temperature 275°C maximum, 10s per JESD22-106



Primary Characteristic

I_o	2*30A
V_{RRM}	200V
I_{FSM}	450A
V_F	0.95V
T_J Max	150°C

Maximum Ratings (Per Leg) at $T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	200	V
Maximum RMS voltage	V_{RMS}	200	V
Maximum DC Blocking Voltage	V_{DC}	200	V
Maximum Average Forward Rectified Current	Per Leg	30	A
	Total	60	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave	I_{FSM}	450	A
Operating Temperature Range	T_J	-55 ~ +150	°C
Storage Temperature Range	T_{STG}	-55 ~ +150	°C
Typical Thermal Resistance ^(Note1) TO-247PT, TO-247PTS	$R_{\theta JA}$ / $R_{\theta JC}$	2	°C/W

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

Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics	Symbols	Value		Units	
		Typ	Max		
Forward Voltage Drop (Note2) at $I_F=5A$ at $I_F=10A$ at $I_F=30A$	V_F	TA=25°C	0.71	-	V
		TA=125°C	0.55	-	
		TA=25°C	0.76	-	
		TA=125°C	0.61	-	
		TA=25°C	0.92	1.05	
		TA=125°C	0.75	-	
Maximum Reverse Current at $V_R=200V$	I_R	TA=25°C	5	10	uA
		TA=125°C	4	-	mA

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



Ratings and Characteristics Curve (TA=25°C unless otherwise noted)

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

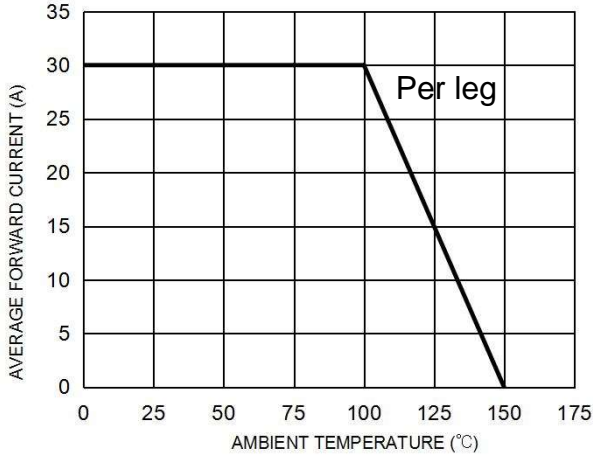


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

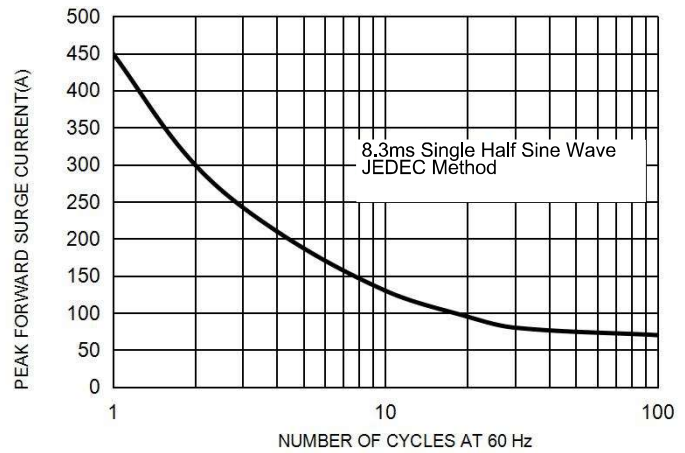


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

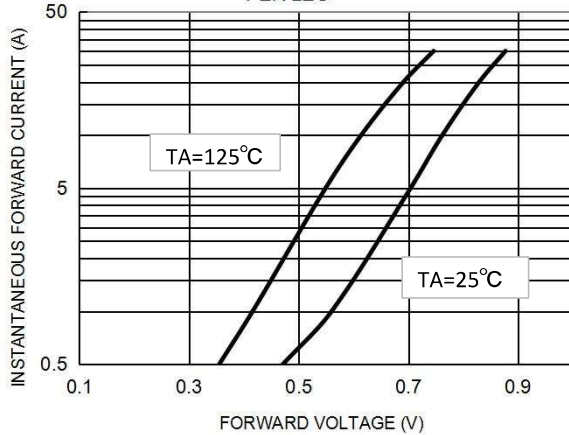
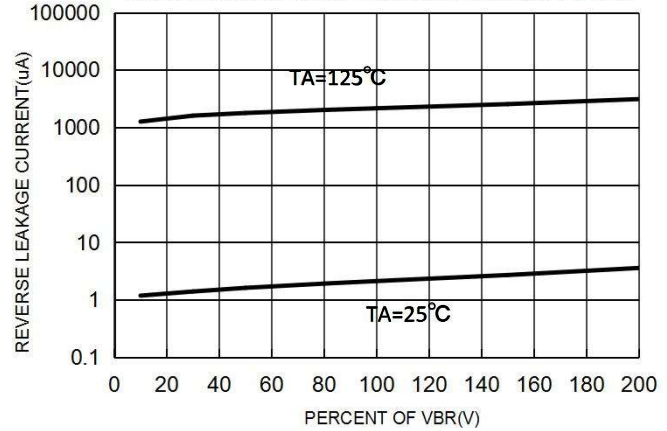


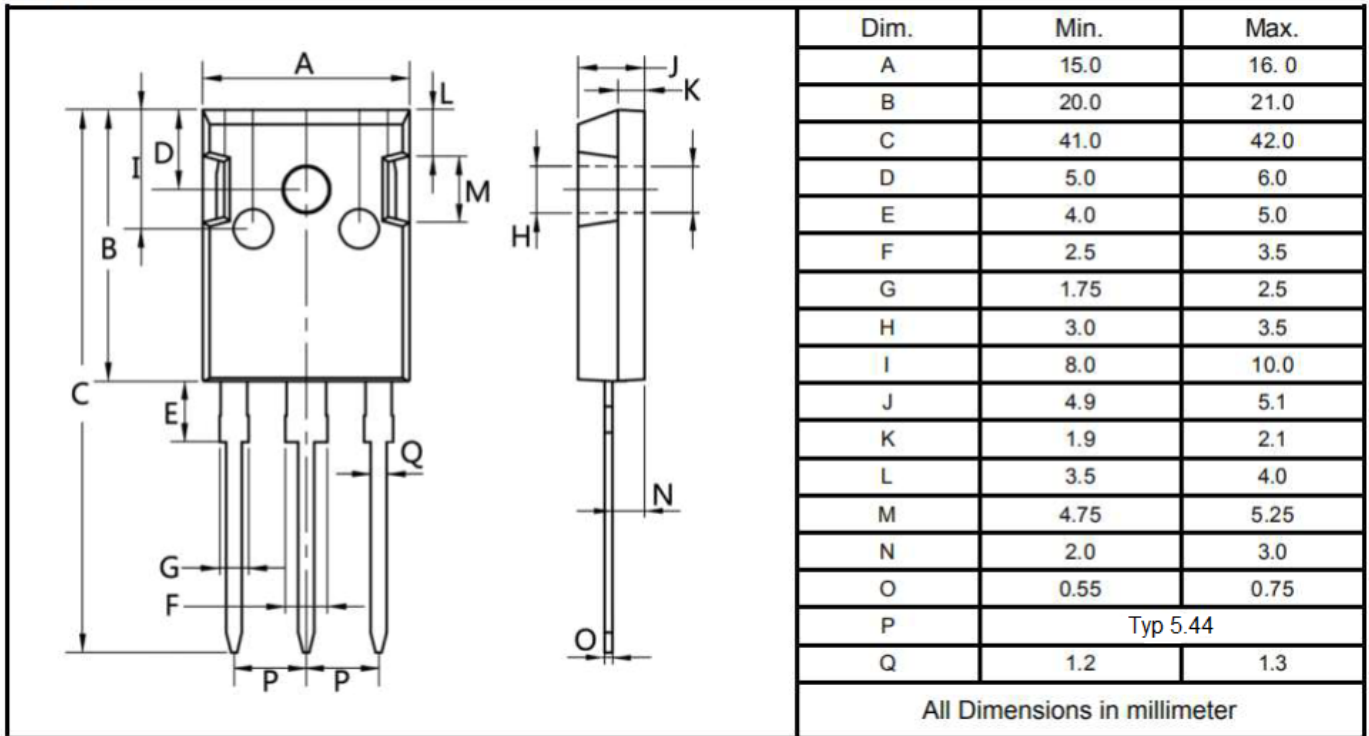
FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



Ordering information

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
MBR60200PT	TO-247	0.209oz(5.93g)	30 pcs / tube	600pcs/box 2400pcs/carton
MBR60200PST	TO-247S	0.158oz(4.48g)	30 pcs / tube	600pcs/box 2400pcs/carton

Note: For Halogen Free molding compound, add "H" suffix to part number above.

TO-247

TO-247S
