

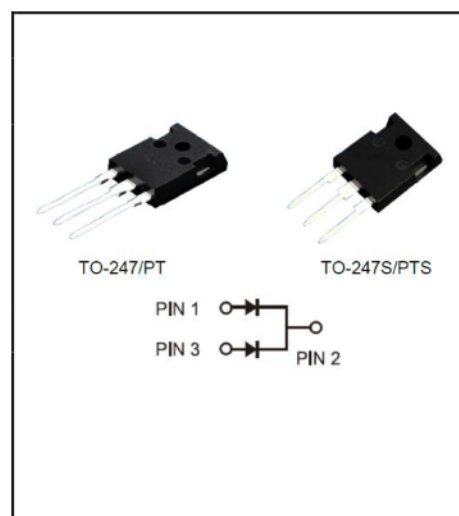
SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 100 V

Forward Current - 40 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-247/PTS
- ♦Solder bath temperature 275°C maximum, 10s per JESD22-106

Primary Characteristic

I_o	2*20A
V_{RRM}	100V
I_{FSM}	450A
V_F	0.66V
$T_J \text{ Max}$	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}	100	V
Maximum RMS voltage	V_{RMS}	100	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Maximum Average Forward Rectified Current	Per Leg	20	A
	Total	40	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave	I_{FSM}	450	A
Operating Temperature Range	T_J	150	°C
Storage Temperature Range	T_{STG}	-40~ +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
Forward Voltage Drop(Note2)		V _F	Typ	Max	V
at I _F =5A	TA=25°C		0.64	-	
	TA=125°C		0.52	-	
at I _F =10A	TA=25°C		0.72	-	
	TA=125°C		0.59	-	
at I _F =20A	TA=25°C		0.79	0.85	
	TA=125°C		0.66	-	
Maximum Reverse Current at V _R =100V	TA=25°C	I _R	4	10	uA
	TA=125°C		3	-	mA

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

RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

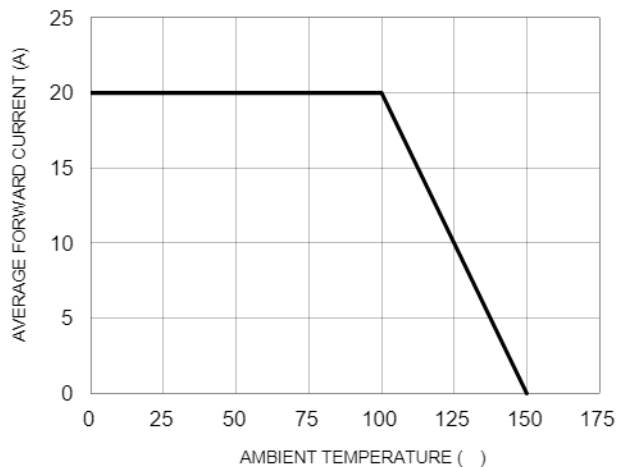


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

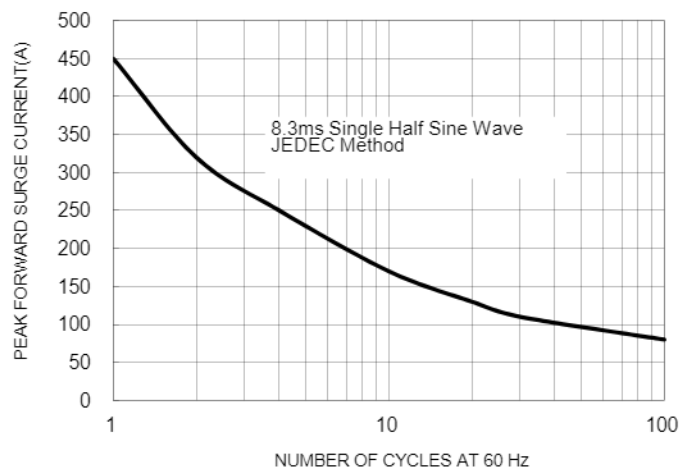


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

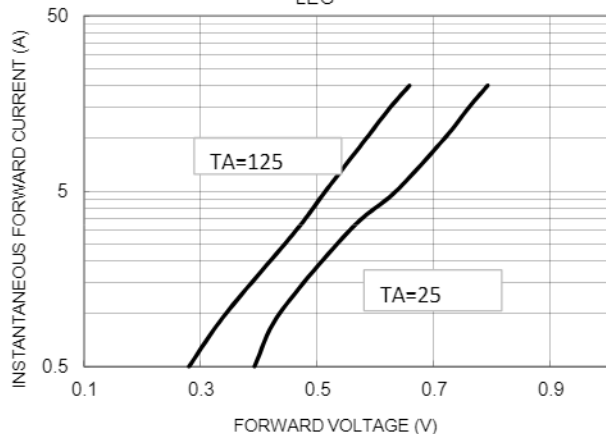
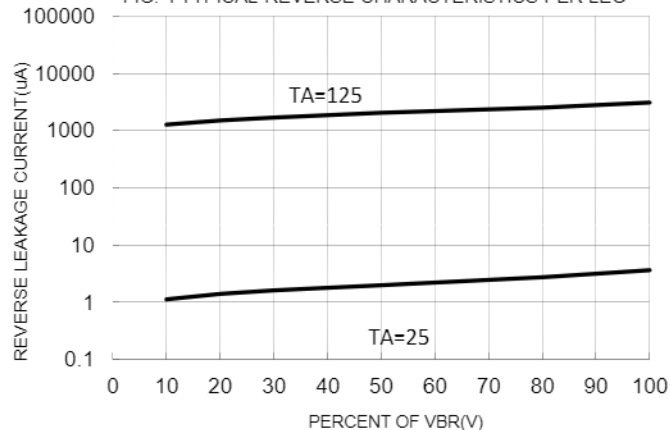
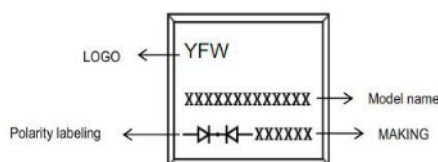


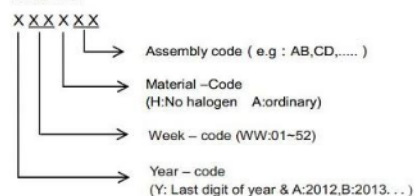
FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



Marking on the body



MAKING:

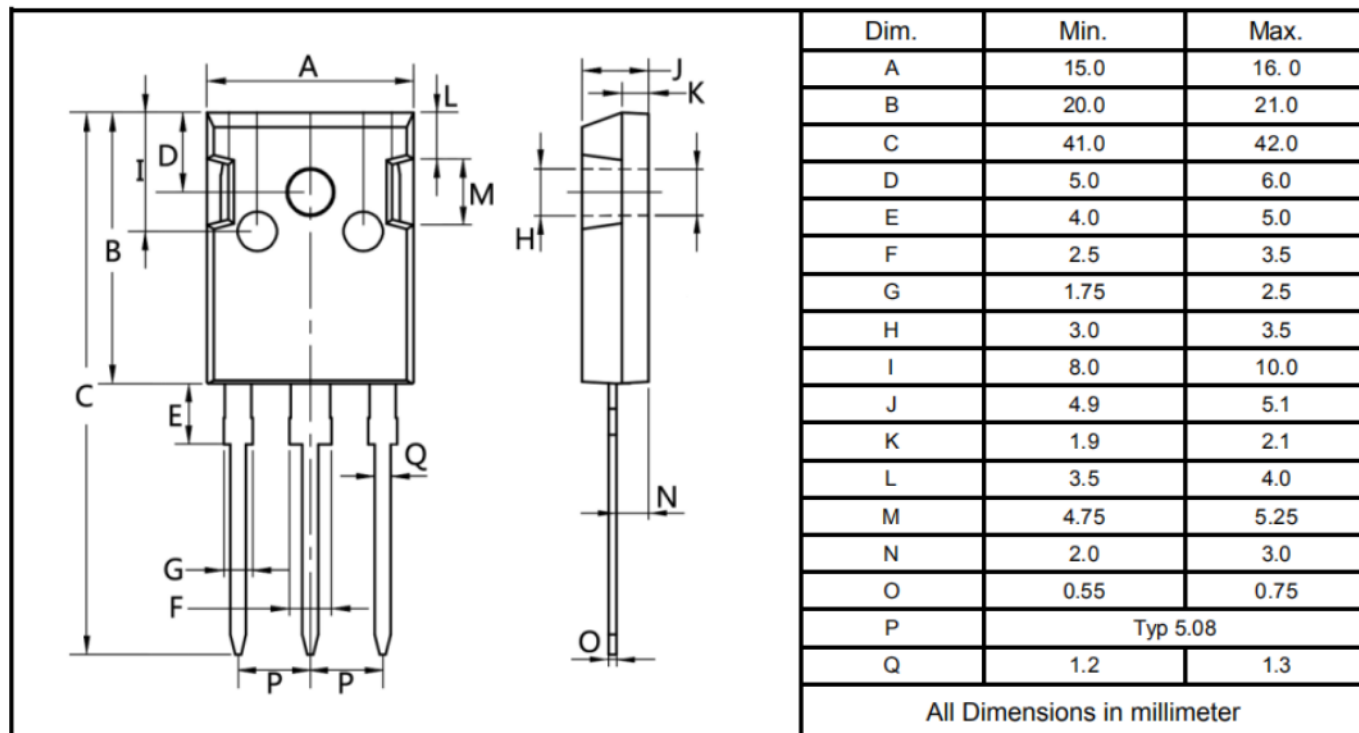


Ordering information

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
MBR40100PT	TO-247	0.209oz(5.93g)	30 pcs / tube	600pcs/box 2400pcs/carton
MBR40100PTS	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

