

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 150 V

Forward Current - 40 A

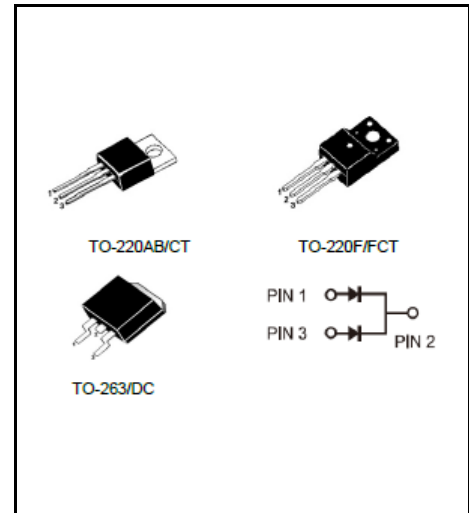


FEATURES

- ◆ 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-220AB/CT TO-220F/FCT TO-263/DC
- ◆ Solder bath temperature 275°C maximum, 10s per JESD22-106



Primary Characteristic

I_o	2*20A
V_{RRM}	150V
I_{FSM}	450A
V_F	0.71V
T_J Max	150°C

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

Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	150	V
Maximum RMS voltage	V_{RMS}	150	V
Maximum DC Blocking Voltage	V_{DC}	150	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-220AB, TO-263 TO-220F	R_{θJA} R_{θJC}	2/4	°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 =20A	V_F	TA=25°C	0.70	-	V
		TA=125°C	0.56	-	
		TA=25°C	0.76	-	
		TA=125°C	0.63	-	
		TA=25°C	0.83	0.88	
		TA=125°C	0.71	-	
Maximum Reverse Current at V _R =150V	I_R	TA=25°C	5	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

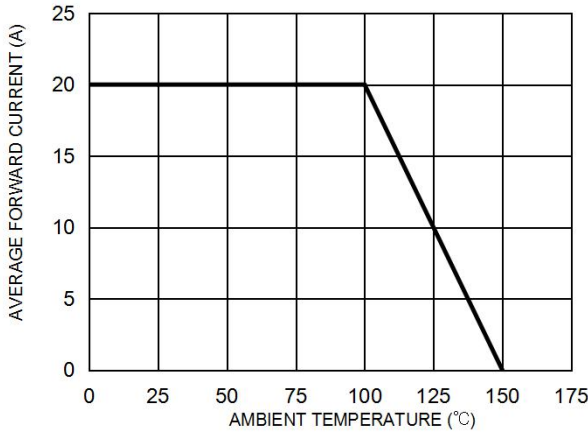


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

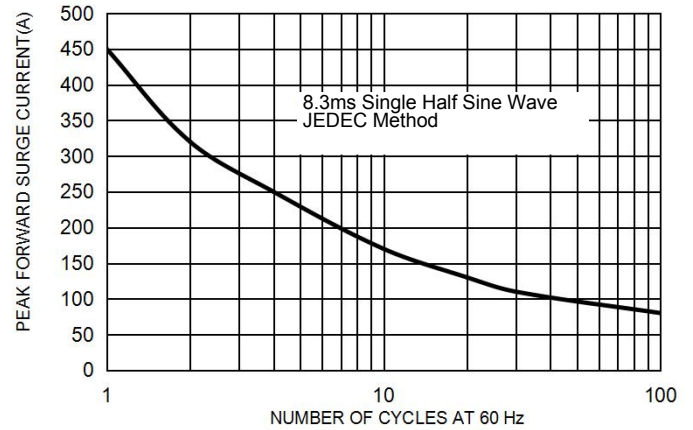


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

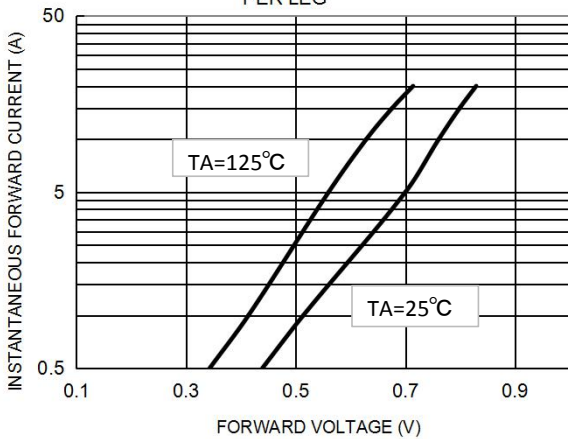
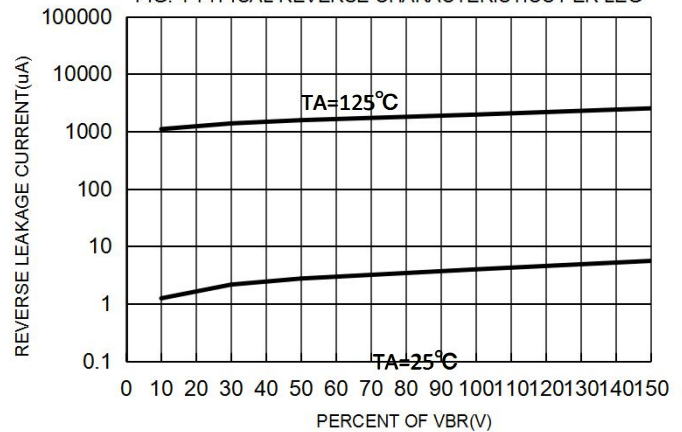
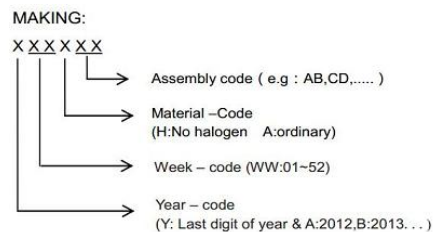
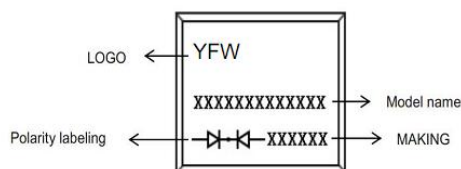


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



Marking on the body



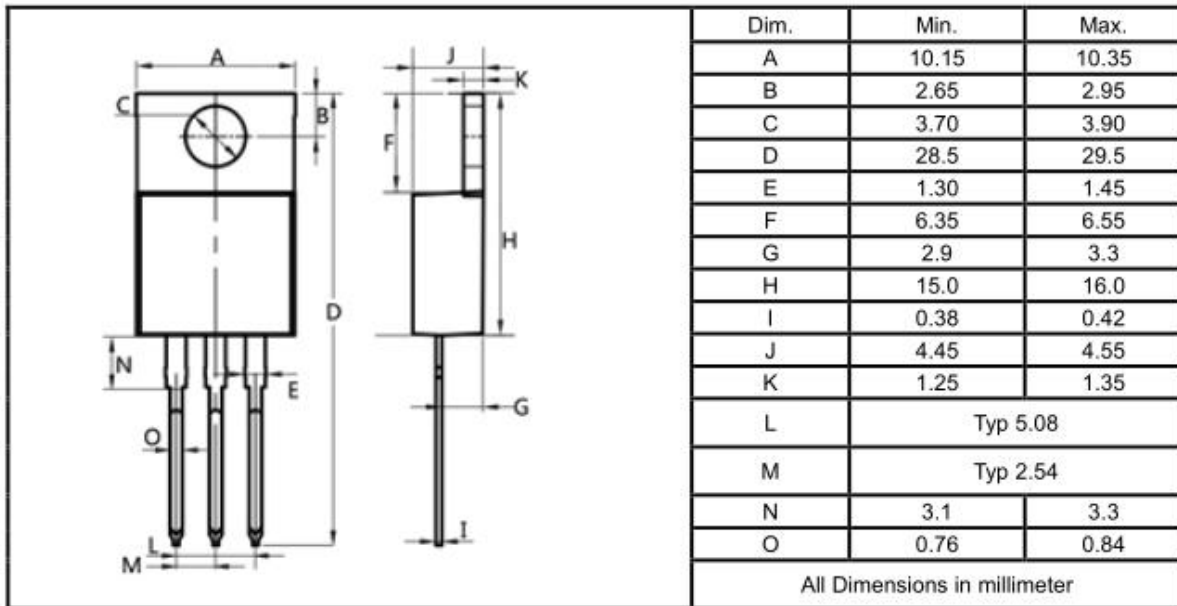
Ordering information

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
MBR40150CT-B	TO-220AB	0.07oz(1.96g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MBR40150FCT-B	TO-220F	0.06oz(1.74g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MBR40150DC-B	TO-263	0.04oz(1.16g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MBR40150DC-B-R	TO-263	0.04oz(1.16g)	800 pcs / reel	800pcs/box 4000pcs/carton

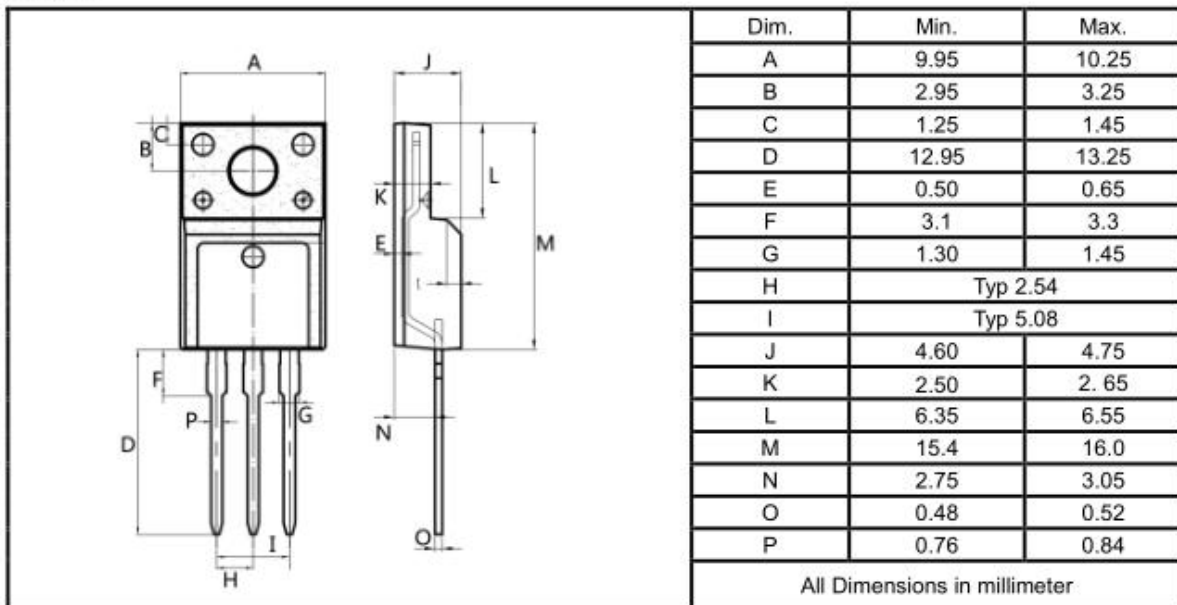
Note: For Halogen Free molding compound, add "H" suffix to part number above.

Package Outline Dimensions millimeters

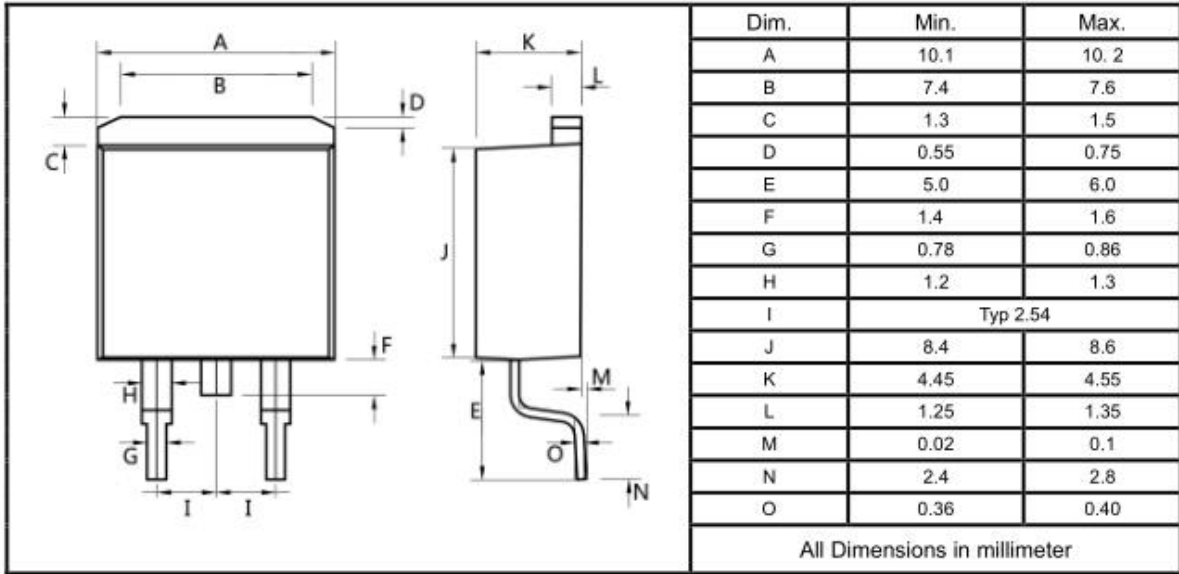
TO-220AB



TO-220F



TO-263



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[PDS1040Q-13](#) [B160BQ-13-F](#) [SDM05U20CSP-7](#) [B140S1F-7](#) [HSM560Je3/TR13](#)