

## SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 80 V

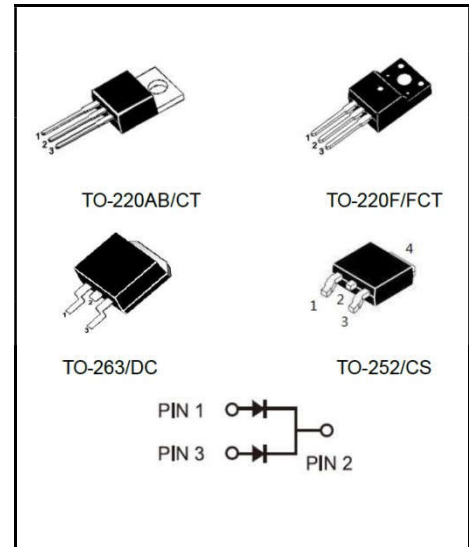
Forward Current - 30 A

### FEATURES

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

<b>I<sub>o</sub></b>	<b>2*15A</b>
<b>V<sub>RRM</sub></b>	<b>80V</b>
<b>I<sub>FSM</sub></b>	<b>360A</b>
<b>V<sub>F</sub></b>	<b>0.75V</b>
<b>T<sub>J</sub> Max</b>	<b>150°C</b>

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

Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	<b>V<sub>RRM</sub></b>	80	<b>V</b>
Maximum RMS voltage	<b>V<sub>RMS</sub></b>	56	<b>V</b>
Maximum DC Blocking Voltage	<b>V<sub>DC</sub></b>	80	<b>V</b>
Maximum Average Forward Rectified Current	Per Leg	15	<b>A</b>
	Total	30	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave	<b>I<sub>FSM</sub></b>	360	<b>A</b>
Operating Temperature Range	<b>T<sub>J</sub></b>	-55 ~ +150	<b>°C</b>
Storage Temperature Range	<b>T<sub>STG</sub></b>	-65 ~ +150	<b>°C</b>
Typical Thermal Resistance <sup>(Note1)</sup> TO-220AB, TO-263 TO-220F	<b>R<sub>θJA</sub>/R<sub>θJC</sub></b>	2/4	<b>°C/W</b>

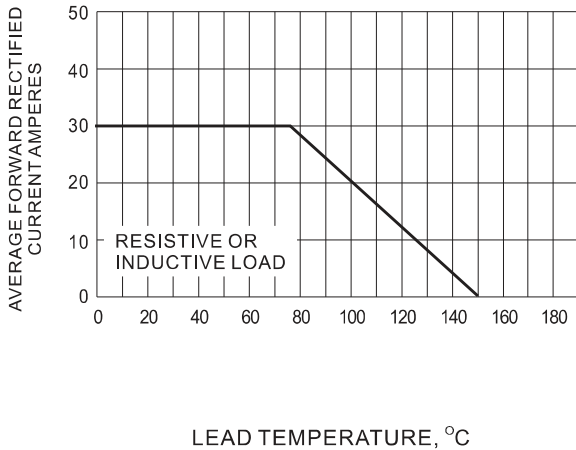
Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

### Electrical Characteristics (Per Leg) unless otherwise specified

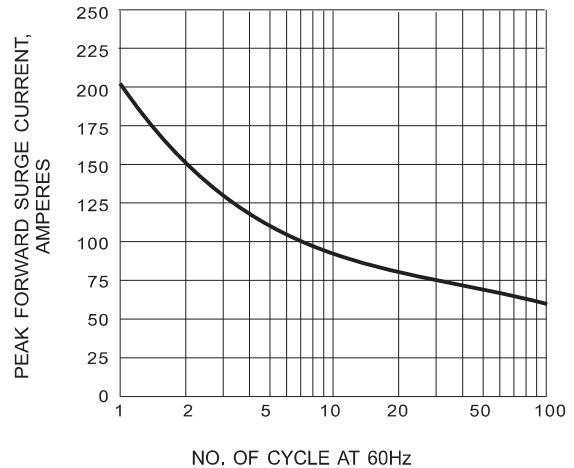
Characteristics	Symbols	Value		Units
		Typ	Max	
Forward Voltage Drop (Note2)	<b>V<sub>F</sub></b>	0.72	0.78	<b>V</b>
at I <sub>F</sub> =15A				
		TA=125°C		
at I <sub>F</sub> =30A		TA=25°C		
	TA=125°C	0.75	-	
Maximum Reverse Current at V <sub>R</sub> =80V	<b>I<sub>R</sub></b>	5	50	<b>uA</b>
		2.5	-	<b>mA</b>

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

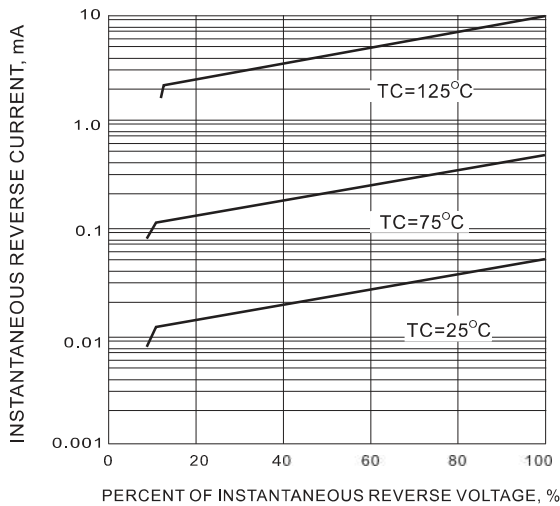
**RATINGS AND CHARACTERISTIC CURVES**



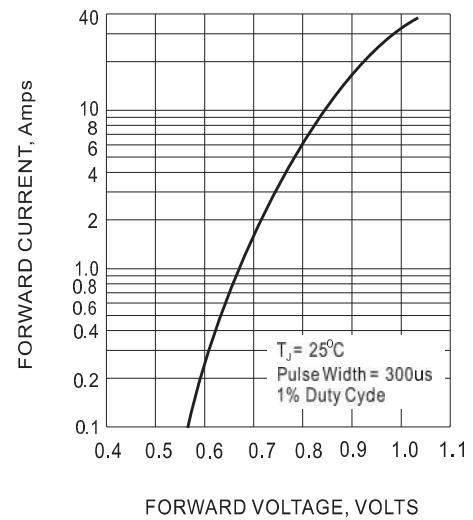
**Fig.1- FORWARD CURRENT DERATING CURVE**



**Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**

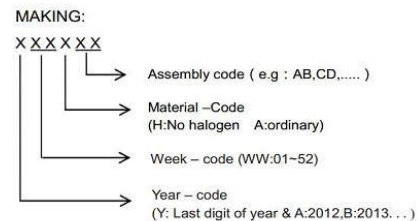
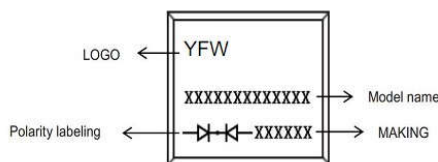


**Fig.3- TYPICAL REVERSE CHARACTERISTIC**



**Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC**

**Marking on the body**



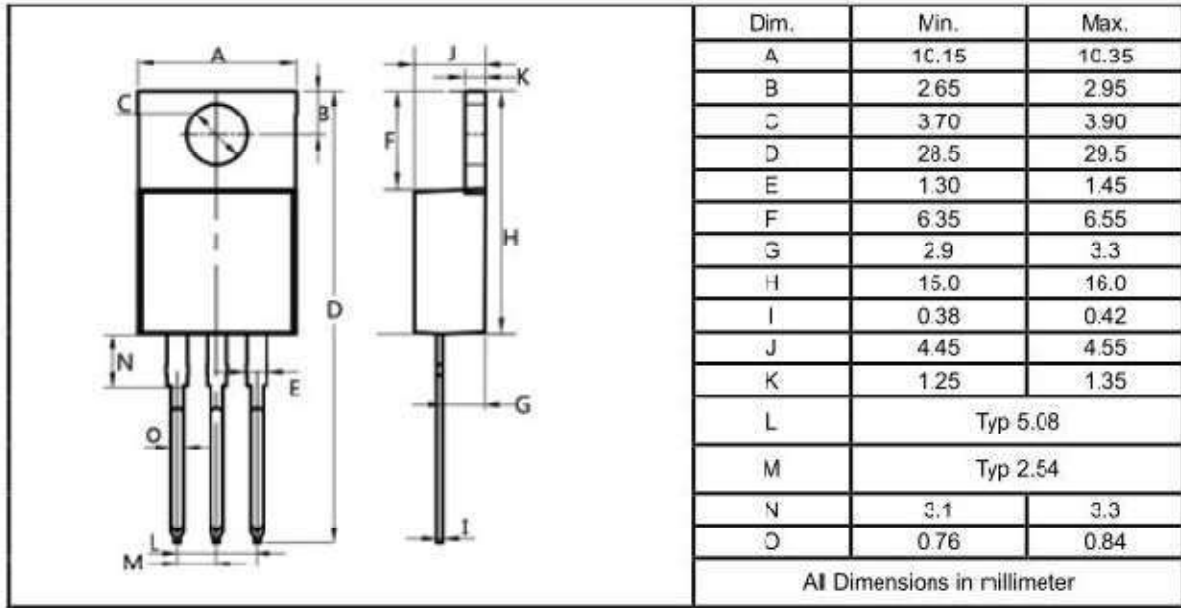
**Ordering information**

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
MBR3080CT	TO-220AB	0.07oz(1.96g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MBR3080FCT	TO-220F	0.06oz(1.74g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MBR3080DC-G	TO-263	0.04oz(1.16g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MBR3080DC	TO-263	0.04oz(1.16g)	800 pcs / reel	1600 pcs/box 4000pcs/carton
MBR3080CS	TO-252	0.011oz(0.32g)	2500 pcs / reel	5000 pcs/box 12500pcs/carton

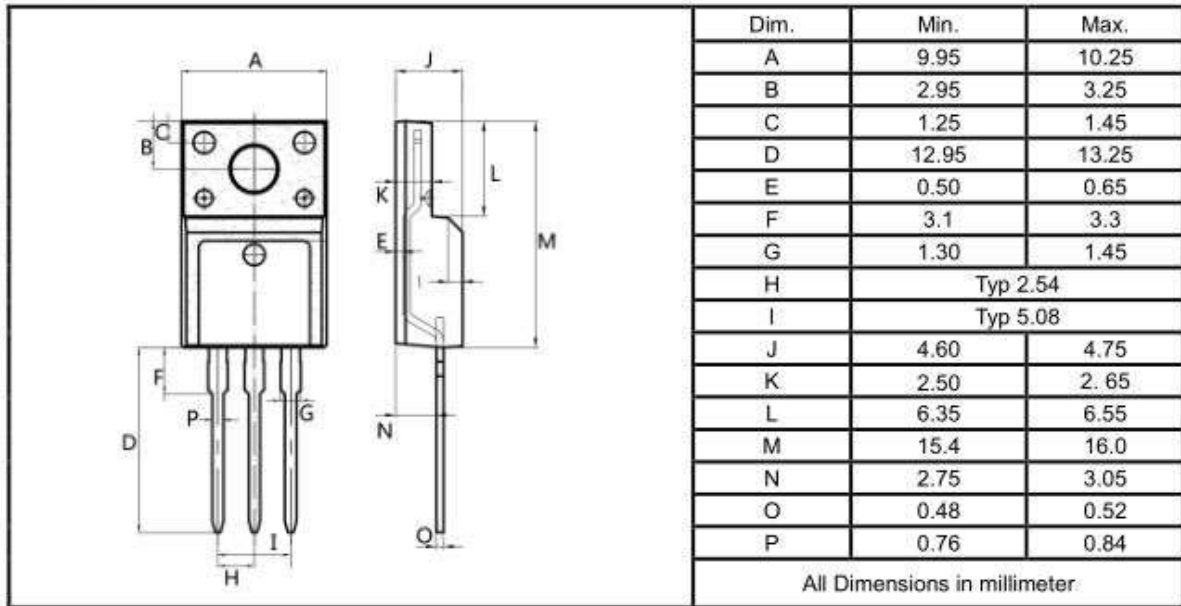
**Note: For Halogen Free molding compound, add "H" suffix to part number above.**

Package Outline Dimensions millimeters

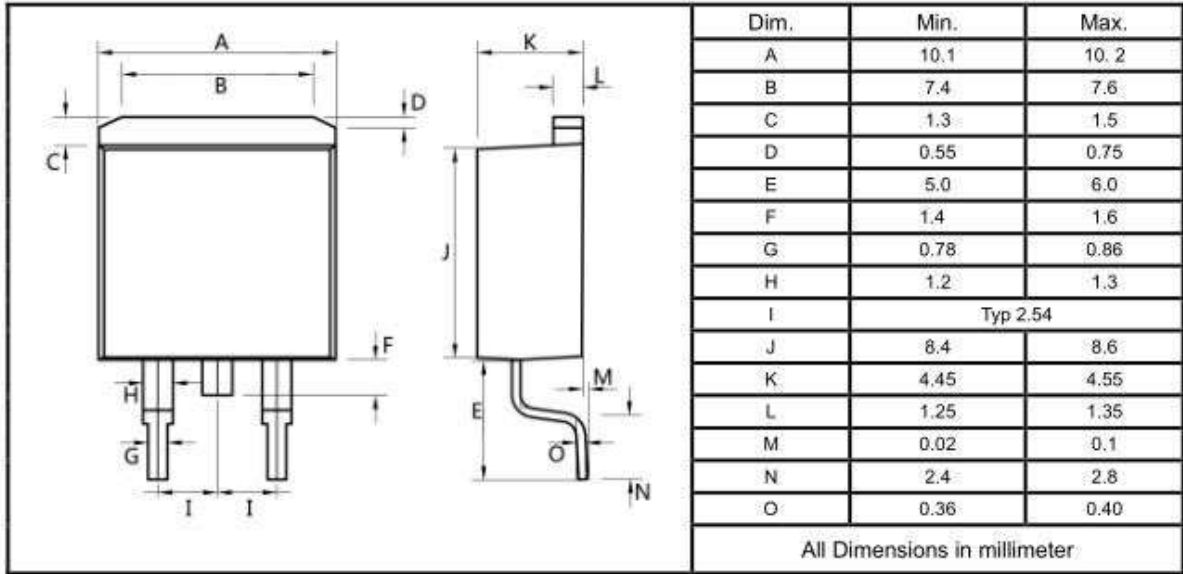
**TO-220AB**



**TO-220F**



**TO-263**



**TO-252**

