

## SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 80 V

Forward Current - 20 A

### FEATURES

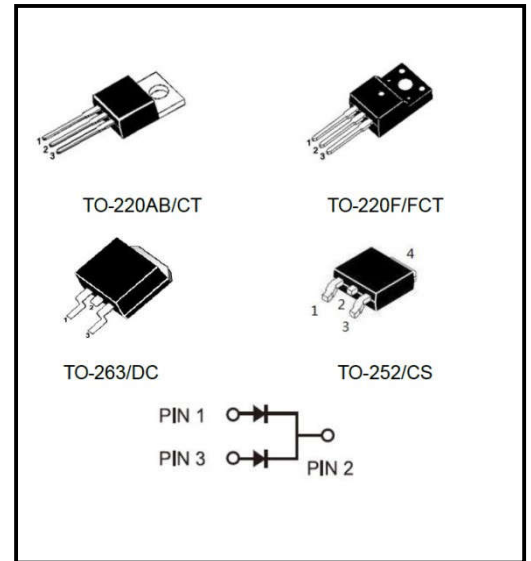
- ◆Very low forward voltage
- ◆High current capability
- ◆High forward surge capability
- ◆Low power losses, High efficiency
- ◆Guarding for over voltage protection
- ◆LeadfreeincomplywithEURoHS2011/65/EUdirectives

### MECHANICAL DATA

- ◆Case: TO-220AB/CT TO-220F/FCT TO-263/DC TO-252/CS
- ◆Solder bath temperature 275°C maximum, 10s per JESD22-106

### Primary Characteristic

$I_o$	2*10A
$V_{RRM}$	80V
$I_{FSM}$	200A
$V_F$	0.75V
$T_J \text{ Max}$	150°C



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

Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	80	V
Maximum RMS voltage	$V_{RMS}$	56	V
Maximum DC Blocking Voltage	$V_{DC}$	80	V
Maximum Average Forward Rectified Current	Per Leg	10	A
	Total	20	
Peak Forward Surge Current, 8.3ms SingleHalf Sine-wave	$I_{FSM}$	200	A
Operating Temperature Range	$T_J$	-50 ~ +150	°C
Storage Temperature Range	$T_{STG}$	-65 ~ +150	°C
Typical Thermal Resistance <sup>(Note1)</sup> TO-220AB, TO-263 TO-220F TO252	$R_{\theta JA} / R_{\theta JC}$	2/4	°C/W

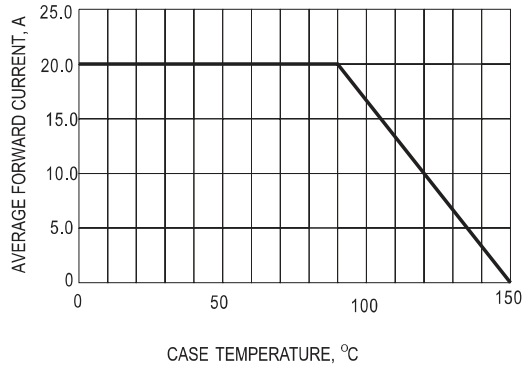
Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

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

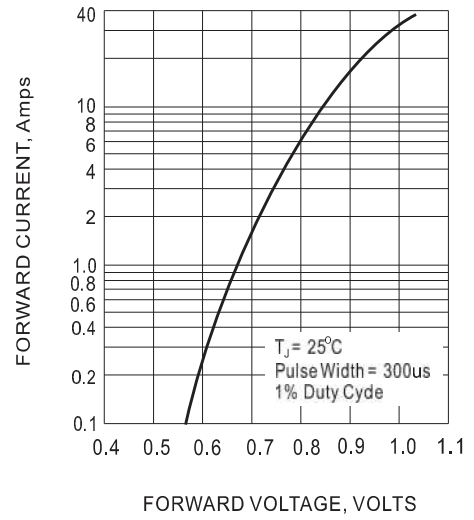
Characteristics	Symbols	Value		Units
		Typ	Max	
Forward Voltage Drop(Note2) at $I_F=10A$	$V_F$	TA=25°C	0.72	V
		TA=125°C	0.65	
		TA=25°C	0.80	
		TA=125°C	0.75	
Maximum Reverse Current at $V_R=60V$	$I_R$	TA=25°C	3	uA
		TA=125°C	-	50

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

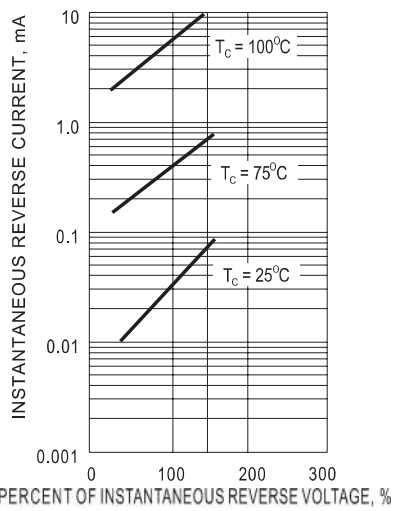
**RATINGS AND CHARACTERISTIC CURVES**



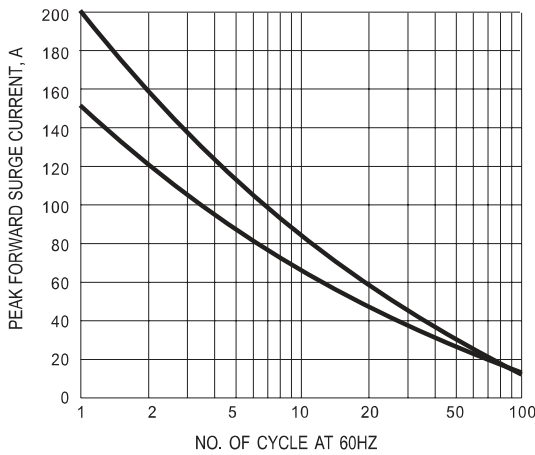
**Fig.1- FORWARD CURRENT DERATING CURVE**



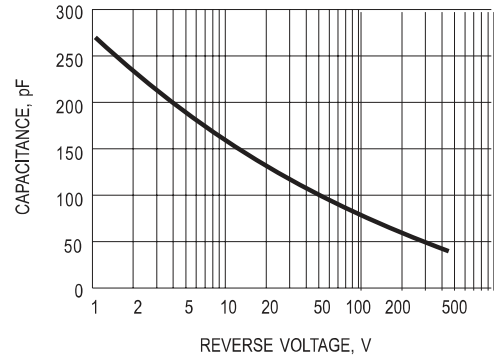
**Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC**



**Fig.3- TYPICAL REVERSE CHARACTERISTIC**

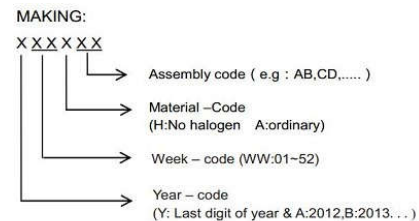
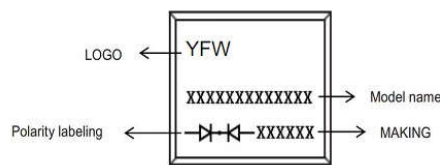


**Fig.4- MAXIMUM NON-REPETITIVE SURGE CURRENT**



**Fig.5- TYPICAL JUNCTION CAPACITANCE**

**Marking on the body**



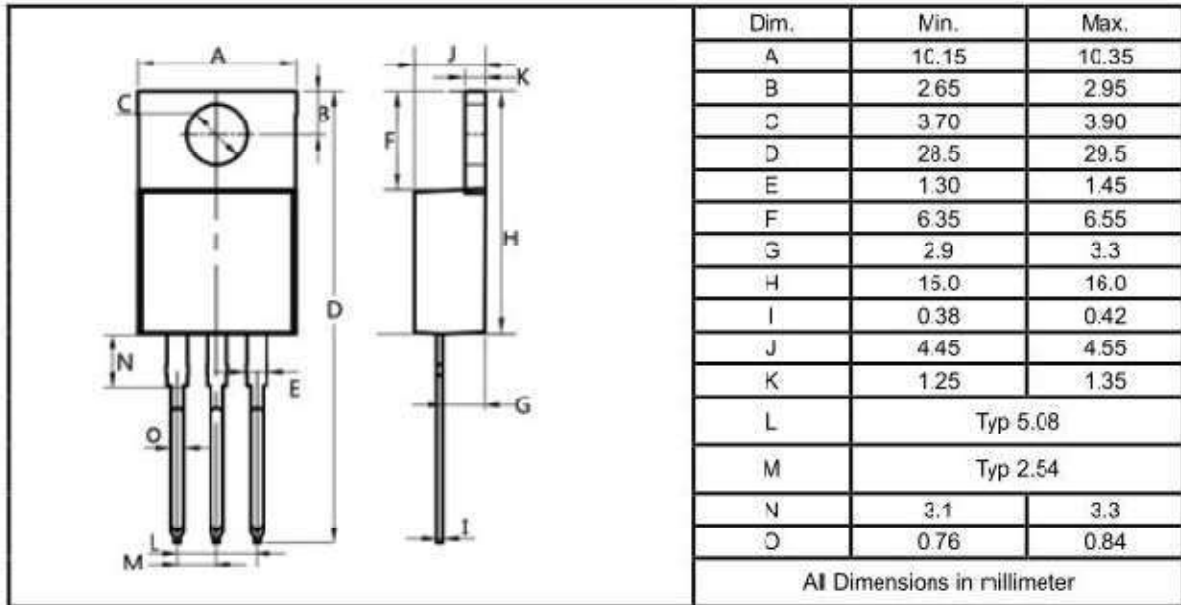
**Ordering information**

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
MBR2080CT	TO-220AB	0.07oz(1.96g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MBR2080FCT	TO-220F	0.06oz(1.74g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MBR2080DC-G	TO-263	0.04oz(1.16g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MBR2080DC	TO-263	0.04oz(1.16g)	800 pcs / reel	1600 pcs/box 4000pcs/carton
MBR2080CS	TO-252	0.011oz(0.32g)	2500 pcs / reel	5000pcs/box 12500pcs/carton

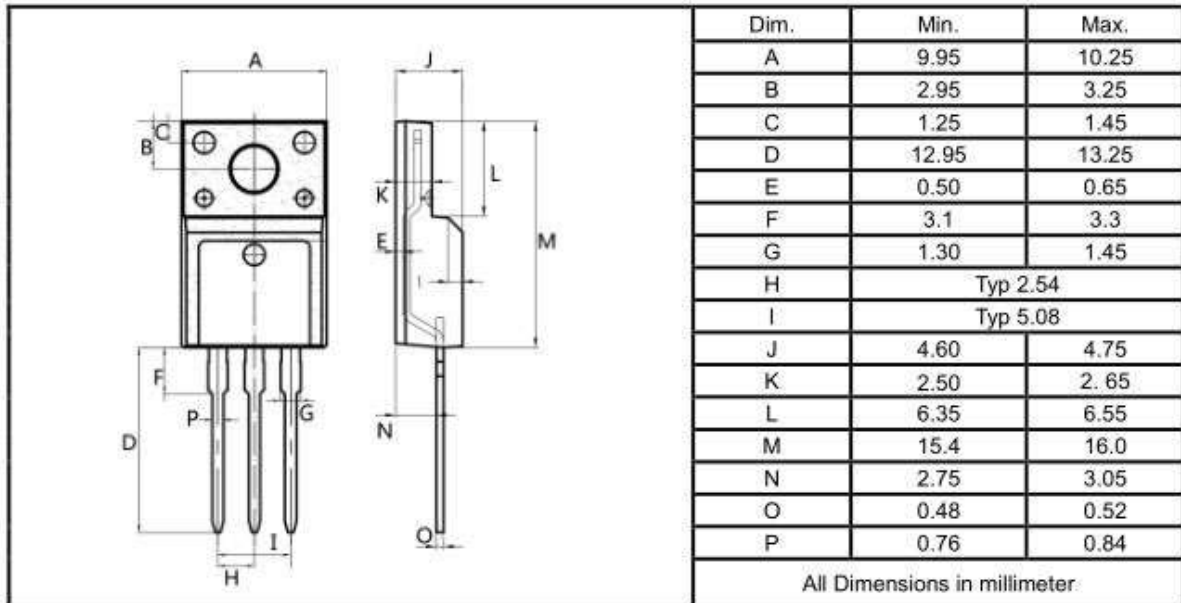
**Note: For Halogen Free molding compound, add "H" suffix to part number above.**

Package Outline Dimensions millimeters

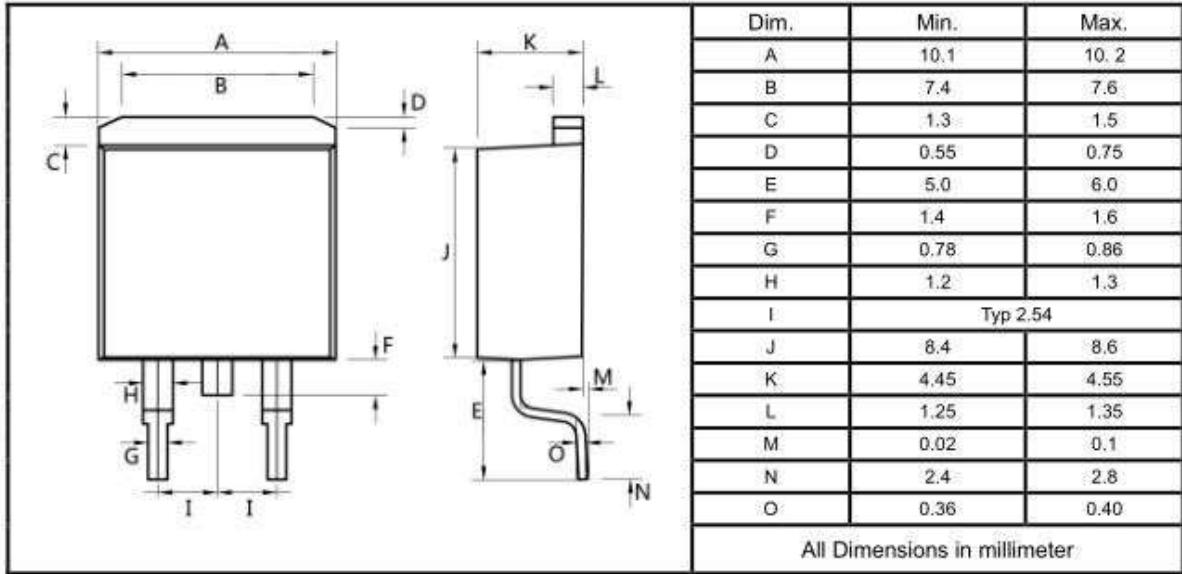
**TO-220AB**



**TO-220F**



**TO-263**



**TO-252**

