

## Trench MOS Barrier Schottky Rectifier

Reverse Voltage - 200 V

Forward Current – 10 A

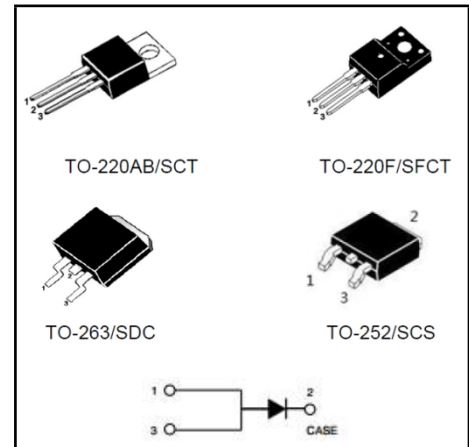


### FEATURES

- ◆ Very 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 TO-252/CS
- ◆ Solder bath temperature 275°C maximum, 10s per JESD22-106



### Primary Characteristic

$I_o$	10A
$V_{RRM}$	200V
$I_{FSM}$	160A
$V_F$	0.71V
$T_J \text{ Max}$	175°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	$I_o$	10	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave	$I_{FSM}$	160	A
Operating Temperature Range	$T_J$	-50 ~ +175	°C
Storage Temperature Range	$T_{STG}$	-50 ~ +175	°C
Typical Thermal Resistance (Note1) TO-220AB TO-263 TO-252 TO-220F	$R_{\theta JA} / R_{\theta JC}$	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 $I_F=3A$ at $I_F=5A$ at $I_F=10A$	$V_F$	TA=25°C	0.73	-	V
		TA=125°C	0.58	-	
		TA=25°C	0.77	0.82	
		TA=125°C	0.62	-	
		TA=25°C	0.84	0.89	
		TA=125°C	0.71	-	
Maximum Reverse Current at $V_R=200V$	$I_R$	TA=25°C	1	10	uA
		TA=125°C	0.3	-	mA

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

**RATINGS AND CHARACTERISTIC CURVES**

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

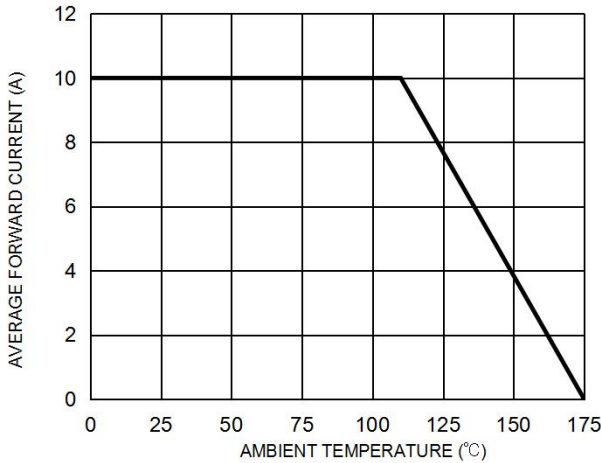


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

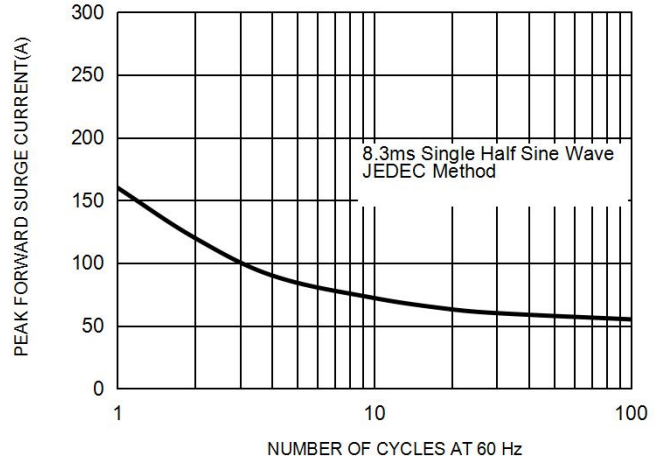


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

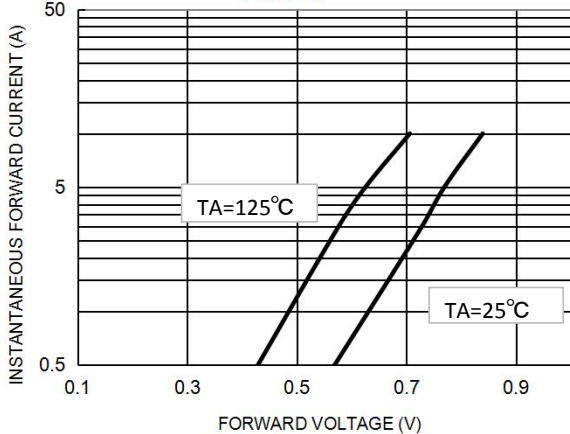
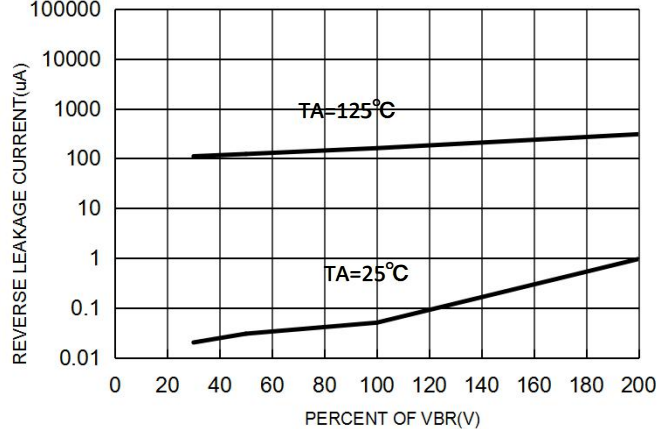
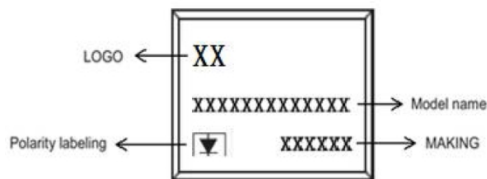


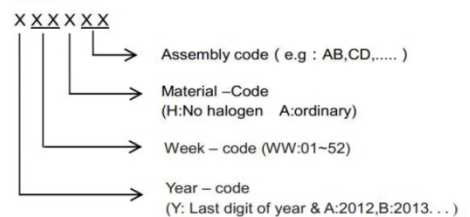
FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



**Marking on the body**



**MAKING:**



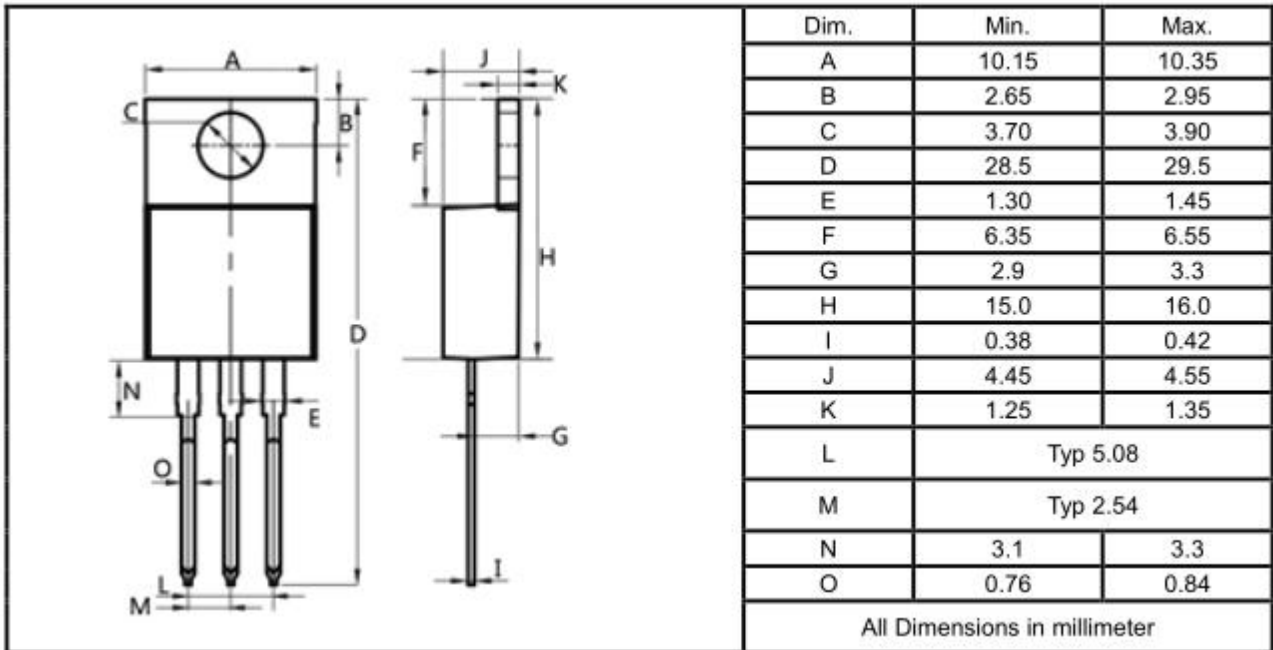
**Ordering information**

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
HRT10L200SCT	TO-220AB	0.07oz(1.96g)	50 pcs / tube	1000pcs/box 5000pcs/carton
HRT10L200SFCT	TO-220F	0.06oz(1.74g)	50 pcs / tube	1000pcs/box 5000pcs/carton
HRT10L200SDC	TO-263	0.04oz(1.16g)	50 pcs / tube	1000pcs/box 5000pcs/carton
HRT10L200SDC-R	TO-263	0.04oz(1.16g)	800 pcs / reel	800pcs/box 4000pcs/carton
HRT10L200SCS	TO-252	0.011oz(0.32g)	2500 pcs / reel	2500 pcs / box 12500pcs/carton

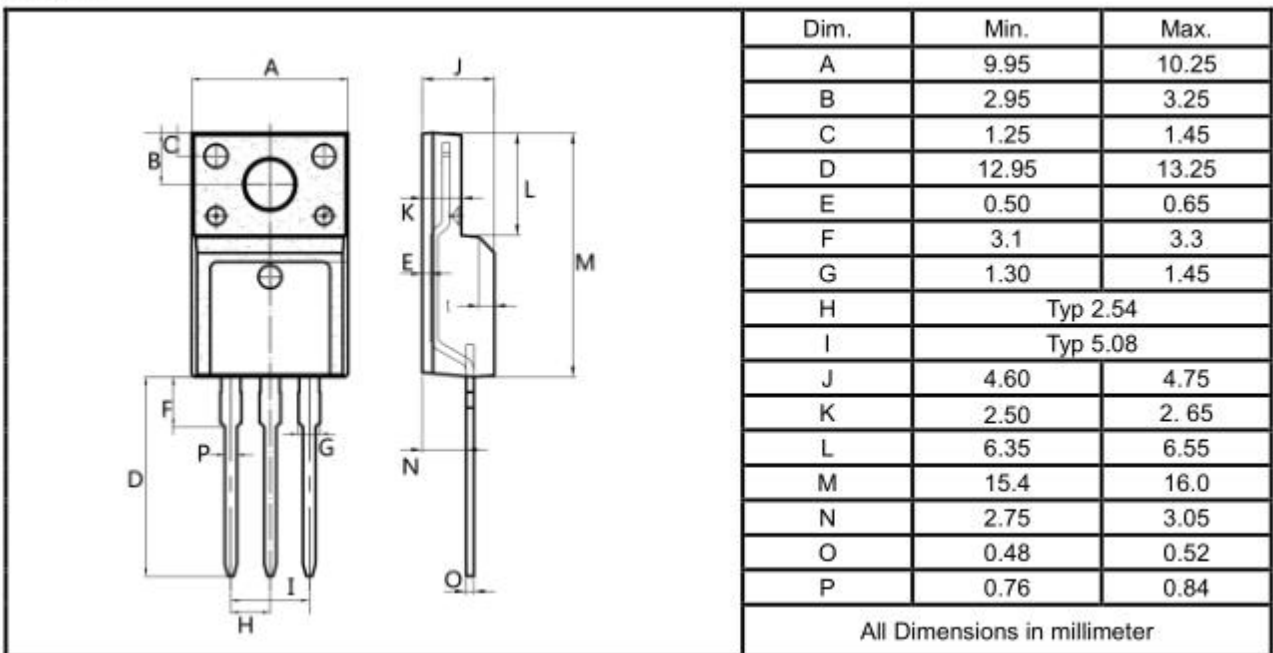
Note: For Halogen Free molding compound, add "H" suffix to part number above.

Package Outline Dimensions millimeters

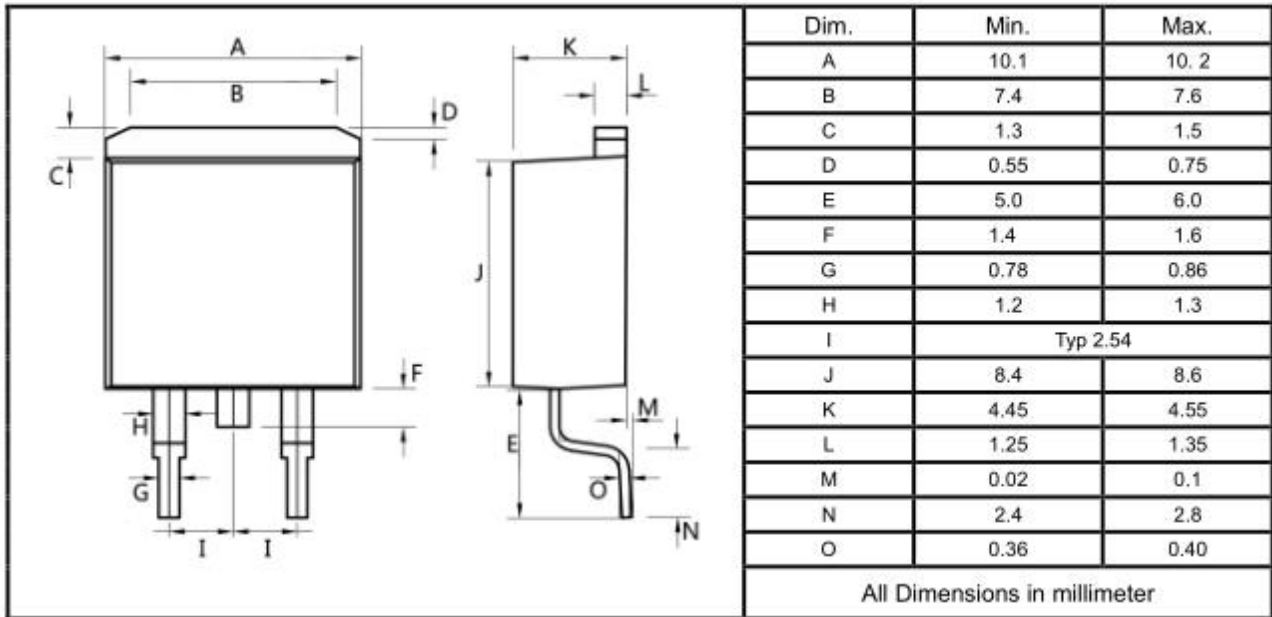
**TO-220AB**



**TO-220F**



TO-263



TO-252

