

## Trench MOS Barrier Schottky Rectifier

Reverse Voltage - 150 V

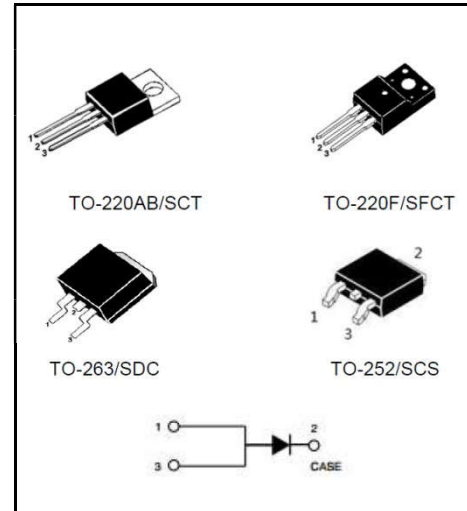
Forward Current – 10 A

### 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

$I_o$	<b>10A</b>
$V_{RRM}$	<b>150V</b>
$I_{FSM}$	<b>160A</b>
$V_F$	<b>0.67V</b>
$T_J$ Max	<b>150°C</b>

### Maximum Ratings (Per Leg) at $T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	150	V
Maximum RMS voltage	$V_{RMS}$	105	V
Maximum DC Blocking Voltage	$V_{DC}$	150	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 ~ +150	°C
Storage Temperature Range	$T_{STG}$	-50 ~ +150	°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)	$V_F$	0.64	-	V	
at $I_F=3A$					TA=25°C
		TA=125°C			
at $I_F=5A$		TA=25°C	0.71		0.78
		TA=125°C	0.58		-
at $I_F=10A$		TA=25°C	0.81		0.96
	TA=125°C	0.67	-		
Maximum Reverse Current at $V_R=150V$	$I_R$	1.5	5	uA	
		1.5	-	mA	

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

**RATINGS AND CHARACTERISTIC CURVES**

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

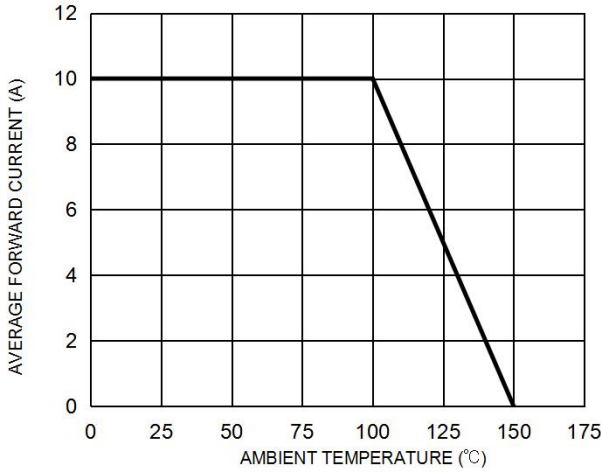


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

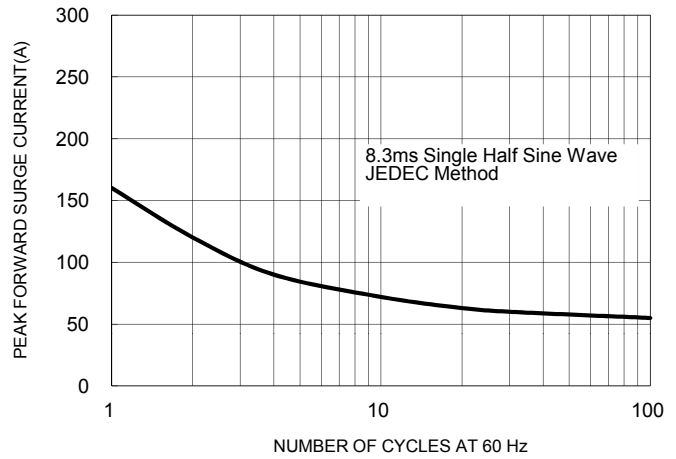


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

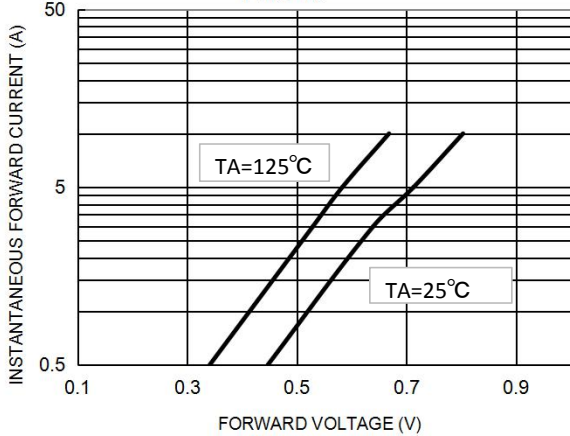
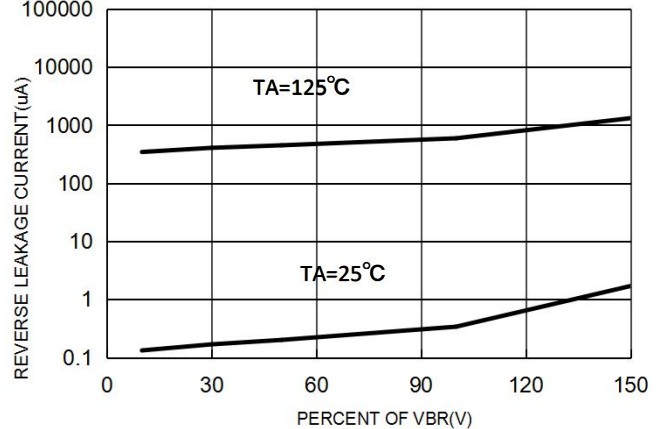
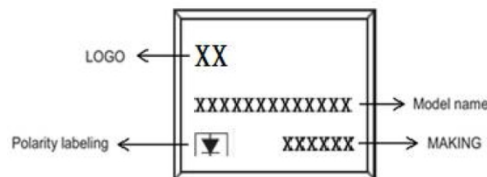


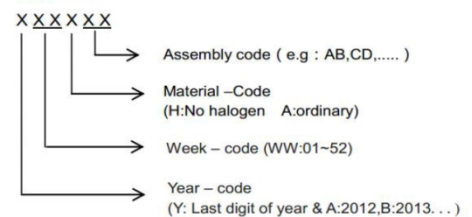
FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



**Marking on the body**



**MAKING:**



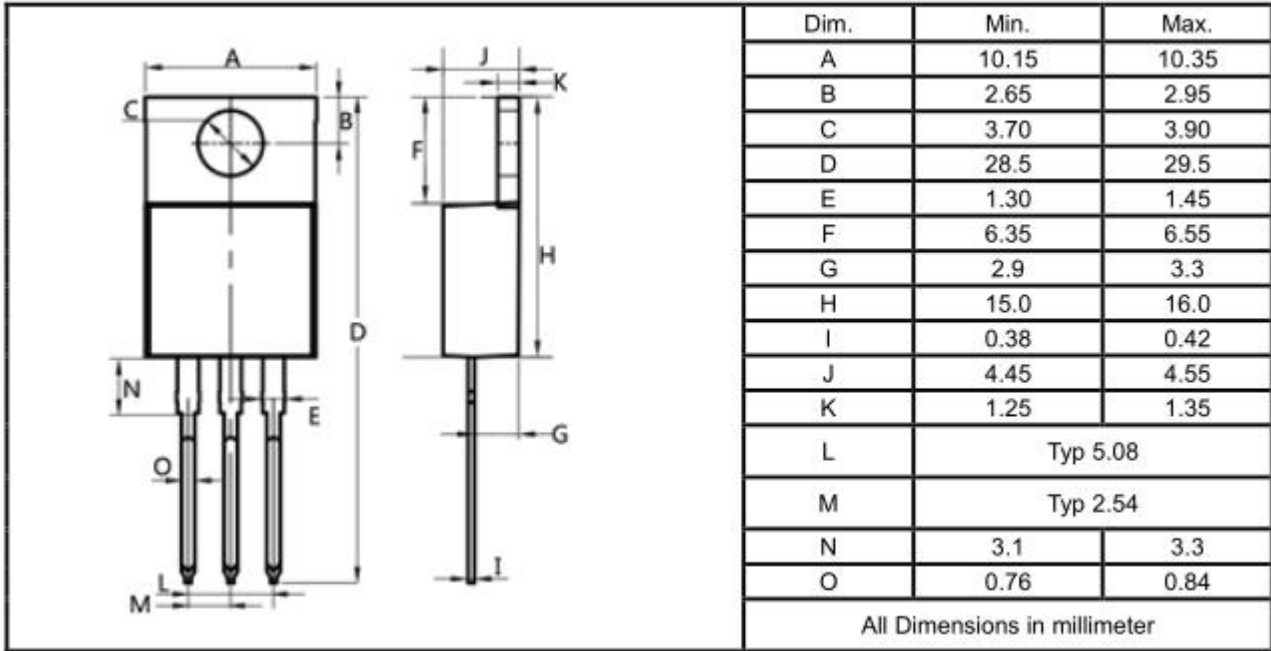
**Ordering information**

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
SRT10L150SCT	TO-220AB	0.07oz(1.96g)	50 pcs / tube	1000pcs/box 5000pcs/carton
SRT10L150SFCT	TO-220F	0.06oz(1.74g)	50 pcs / tube	1000pcs/box 5000pcs/carton
SRT10L150SDC-G	TO-263	0.04oz(1.16g)	50 pcs / tube	1000pcs/box 5000pcs/carton
SRT10L150SDC	TO-263	0.04oz(1.16g)	800 pcs / reel	1600pcs/box 4000pcs/carton
SRT10L150SCS	TO-252	0.011oz(0.32g)	2500 pcs / reel	5000pcs /box 12500pcs/carton

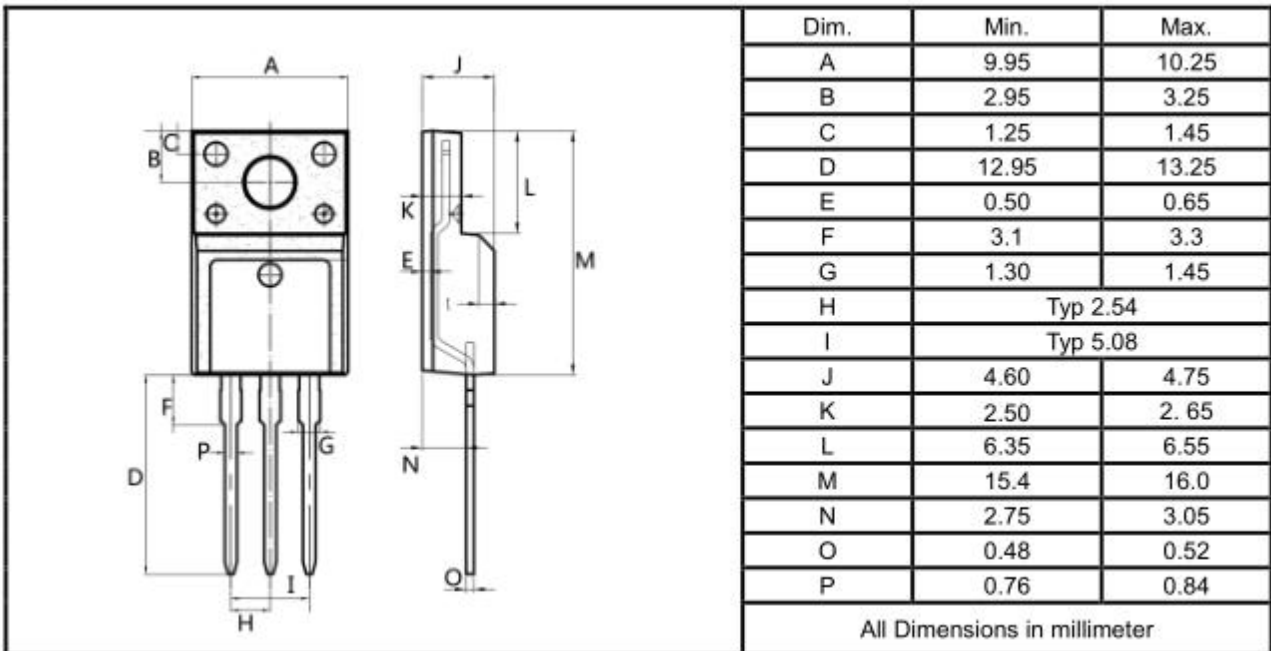
Note: For Halogen Free molding compound, add "H" suffix to part number above.

Package Outline Dimensions millimeters

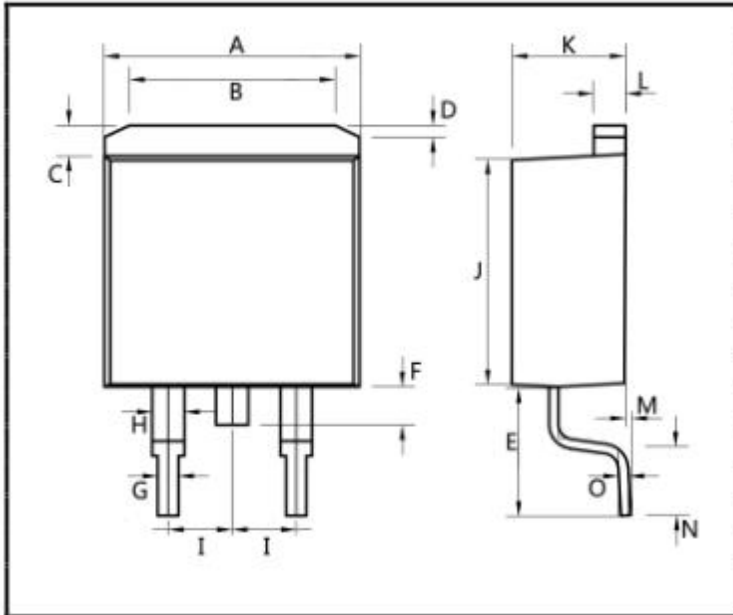
**TO-220AB**



**TO-220F**

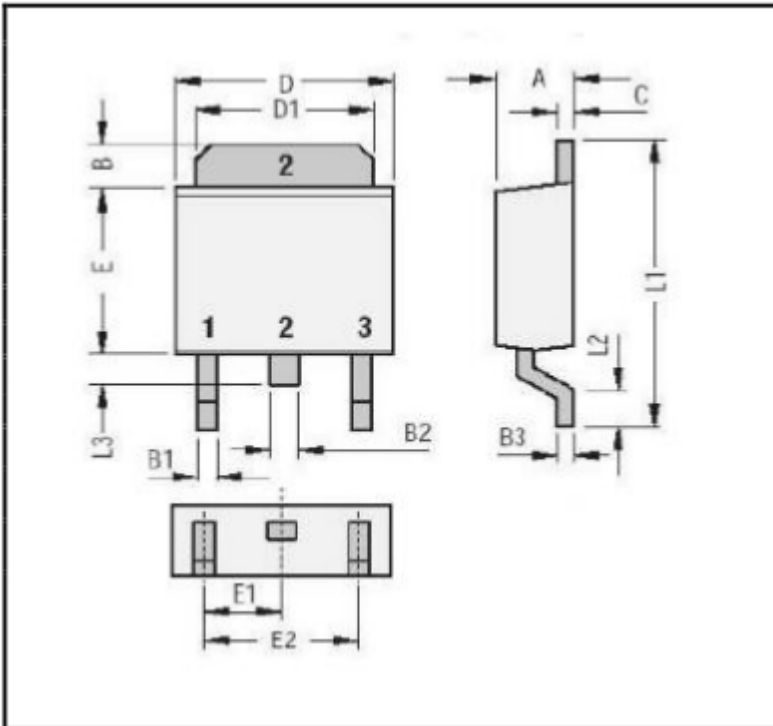


**TO-263**



Dim.	Min.	Max.
A	10.1	10.2
B	7.4	7.6
C	1.3	1.5
D	0.55	0.75
E	5.0	6.0
F	1.4	1.6
G	0.78	0.86
H	1.2	1.3
I	Typ 2.54	
J	8.4	8.6
K	4.45	4.55
L	1.25	1.35
M	0.02	0.1
N	2.4	2.8
O	0.36	0.40
All Dimensions in millimeter		

**TO-252**



Dim.	Min.	Max.
A	2.1	2.5
B	1.3	1.7
C	0.4	0.6
D	6.4	6.7
D1	5.1	5.5
E	5.5	6.0
E1	Typ2.3	
E2	Typ4.6	
B1	0.6	0.8
B2	0.75	0.95
B3	0.35	0.45
L1	9.0	10.0
L2	1.4	1.6
L3	0.75	0.95
All Dimensions in millimeter		