

Trench MOS Barrier Schottky Rectifier

Reverse Voltage - 100 V

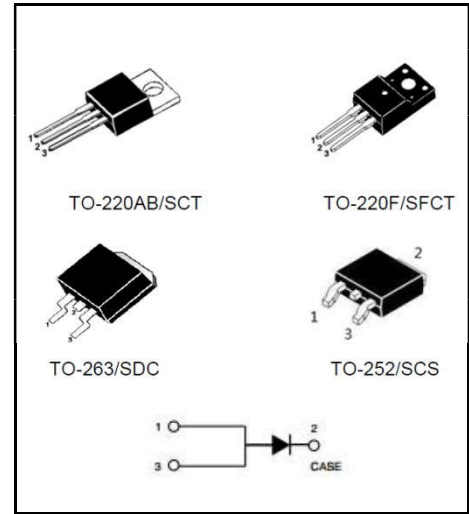
Forward Current – 10 A

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}	100V
I_{FSM}	160A
V_F	0.62V
$T_J \text{ Max}$	150°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}	100	V
Maximum RMS voltage	V_{RMS}	70	V
Maximum DC Blocking Voltage	V_{DC}	100	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) at $I_F=3A$ at $I_F=5A$ at $I_F=10A$	V_F	TA=25°C	0.49	-	V
		TA=125°C	0.43	-	
		TA=25°C	0.55	0.58	
		TA=125°C	0.51	-	
		TA=25°C	0.67	0.70	
		TA=125°C	0.62	-	
Maximum Reverse Current at $V_R=100V$	I_R	TA=25°C	5	50	uA
		TA=125°C	5	-	mA

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

RATINGS AND CHARACTERISTIC CURVES

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

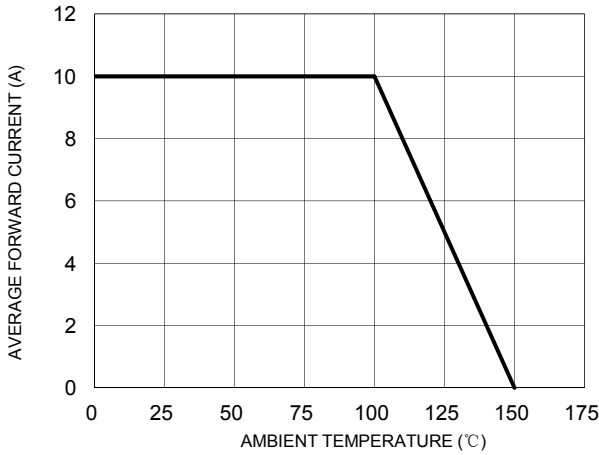


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

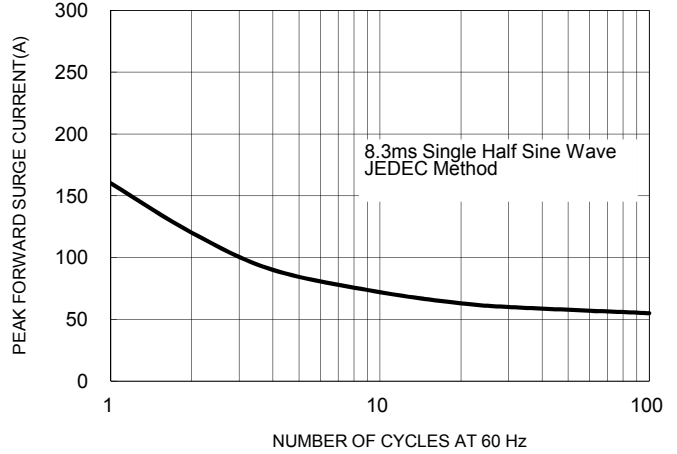


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

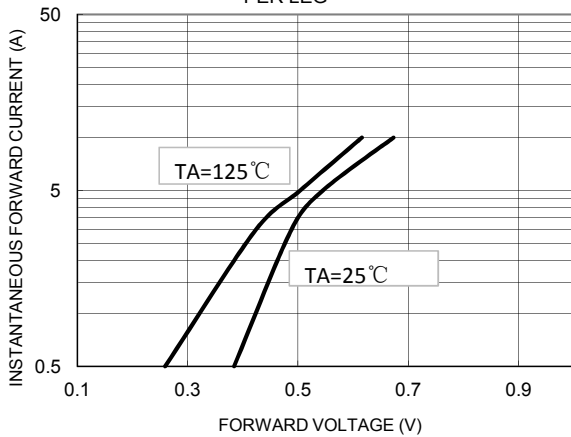
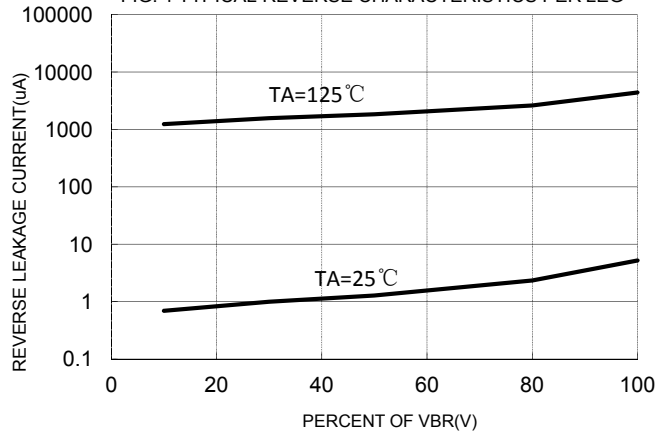
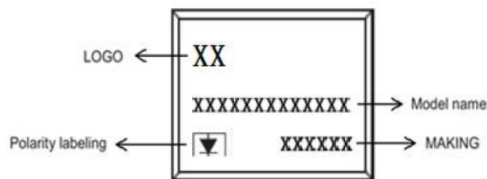


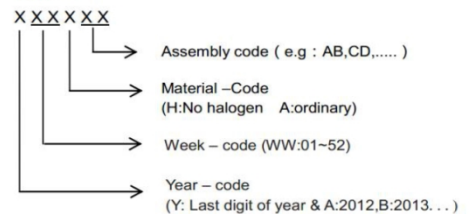
FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



Marking on the body



MAKING:



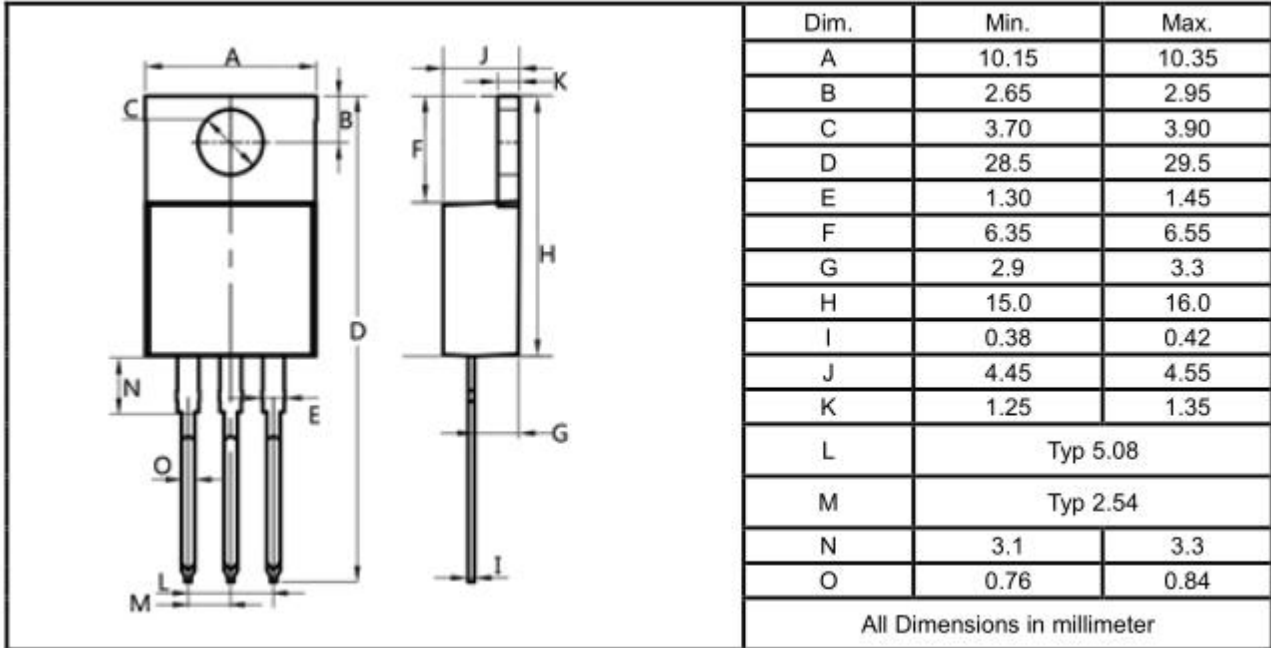
Ordering information

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
SRT10L100SCT	TO-220AB	0.07oz(1.96g)	50 pcs / tube	1000pcs/box 5000pcs/carton
SRT10L100SFCT	TO-220F	0.06oz(1.74g)	50 pcs / tube	1000pcs/box 5000pcs/carton
SRT10L100SDC-G	TO-263	0.04oz(1.16g)	50 pcs / tube	1000pcs/box 5000pcs/carton
SRT10L100SDC	TO-263	0.04oz(1.16g)	800 pcs / reel	1600pcs/box 4000pcs/carton
SRT10L100SCS	TO-252	0.011oz(0.32g)	2500 pcs / reel	5000pcs / box 12500pcs/carton

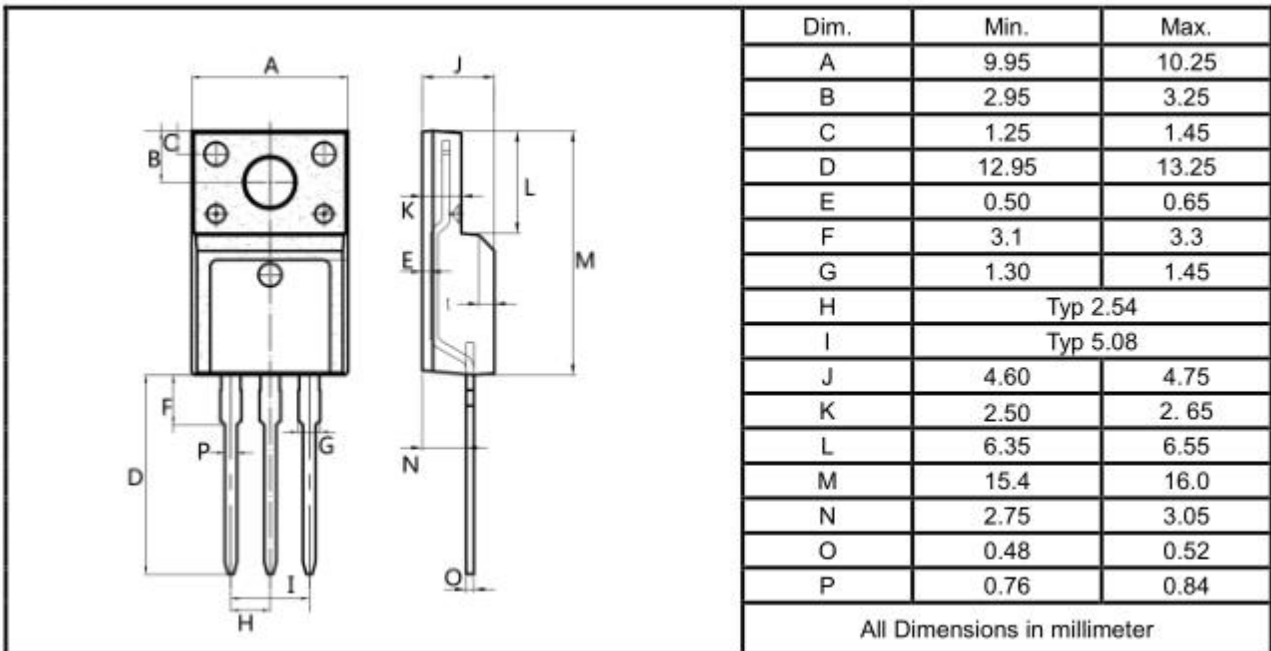
Note: For Halogen Free molding compound, add "H" suffix to part number above.

Package Outline Dimensions millimeters

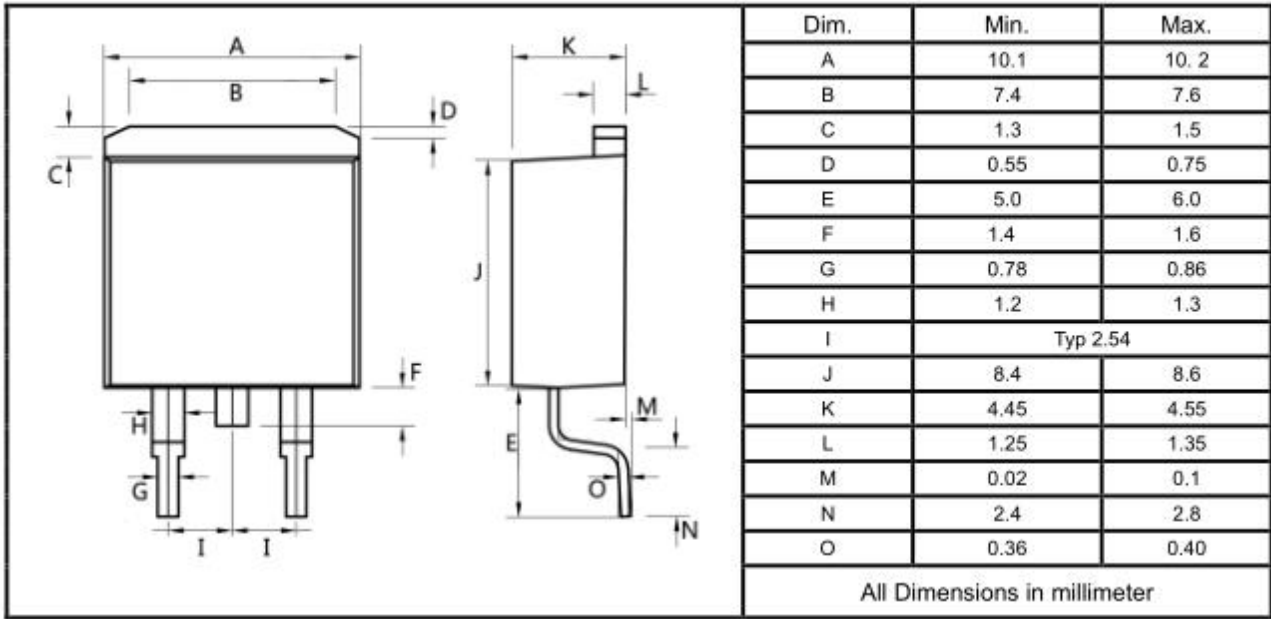
TO-220AB



TO-220F



TO-263



TO-252

