

## LOW VF SCHOTTKY RECTIFIER

**Reverse Voltage - 300 V**

**Forward Current - 10 A**

### Features

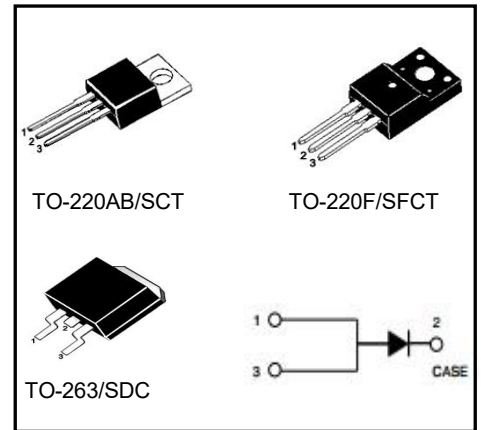
- ◆ Low forward voltage
- ◆ High current capability
- ◆ High forward surge capability
- ◆ Low power losses, High efficiency
- ◆ Guarding for over voltage protection

### APPLICATIONS

Low VF Schottky barrier rectifier are designed for high frequency, miniature switched mode power supplies such as adapters ,lighting and on-board DC/DC conerters

### MECHANICAL DATA

- ◆ Case: Molded plastic
- ◆ Polarity: As marked
- ◆ Mounting Position: Any
- ◆ Molded Plastic: UL Flammability Classification Rating 94V-0
- ◆ Lead free in compliance with EU RoHS 2011/65/EU directive
- ◆ Solder bath temperature 275°C maximum,10s per JESD 22-B106



### Primary Characteristic

$I_o$	<b>10A</b>
$V_{RRM}$	<b>300V</b>
$I_{FSM}$	<b>180A</b>
$V_F$	<b>0.78V</b>
$T_J Max$	<b>150°C</b>

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

Characteristics	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	300	V
Working Peak Reverse Voltage	$V_{RWM}$	210	V
Maximum DC Blocking Voltage	$V_{DC}$	300	V
Maximum Average Forward Rectified Current	$I_o$	10	A
Peak Forward Surge Current,8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	180	A
Operating Temperature Range	$T_J$	-50 to +150	°C
Storage Temperature Range	$T_{STG}$	-50 to +150	°C
Typical Thermal Resistance (Note1) TO-220AB,TO-263 /TO-220F	$R_{\theta JC}$	2/4	°C/W

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

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

Characteristics		Symbol	Value		Unit
Forward Voltage Drop(Note2)		$V_F$	Typ.	Max.	V
at $I_F=3A$	TA=25°C		0.77	0.83	
	TA=125°C		0.65	-	
at $I_F=5A$	TA=25°C		0.82	-	
	TA=125°C		0.69	-	
at $I_F=10A$	TA=25°C		0.92	0.98	
	TA=125°C	0.78	-		
Maximum Reverse Current at $V_R=300V$	TA=25°C	$I_R$	0.2	2	μA
	TA=125°C		20	-	μA

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

**Ratings and Characteristic Curves**

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

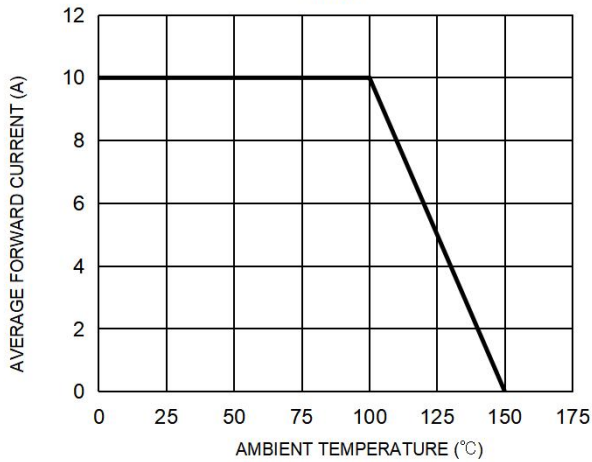


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

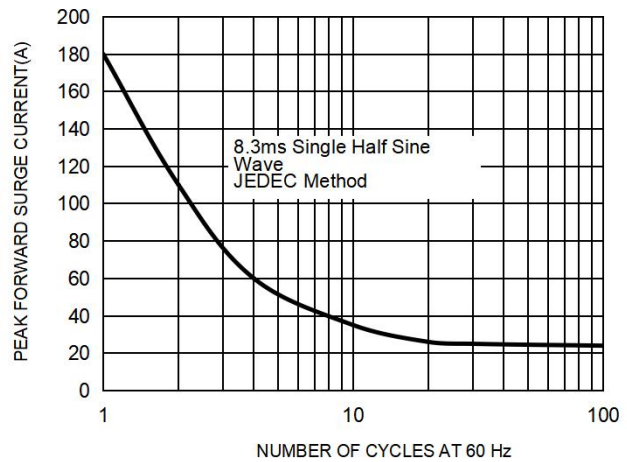


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

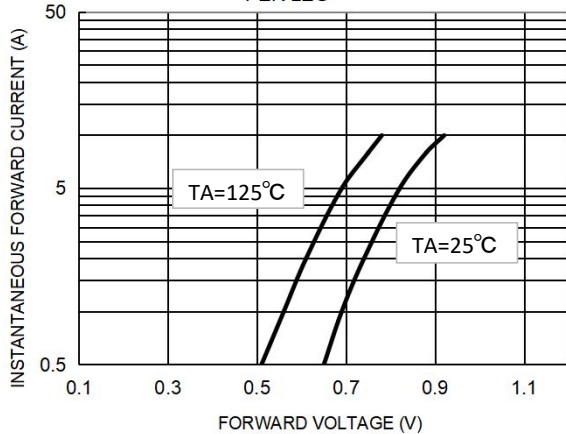
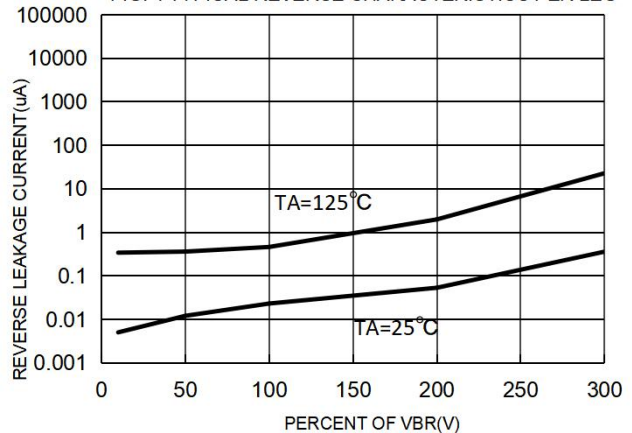
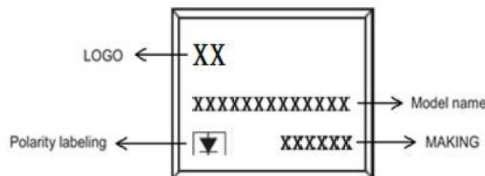


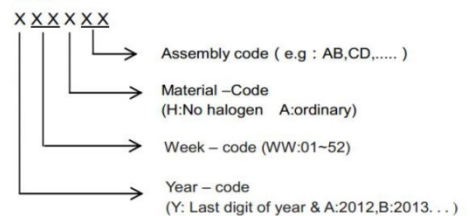
FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



**Marking on the body**



**MAKING:**



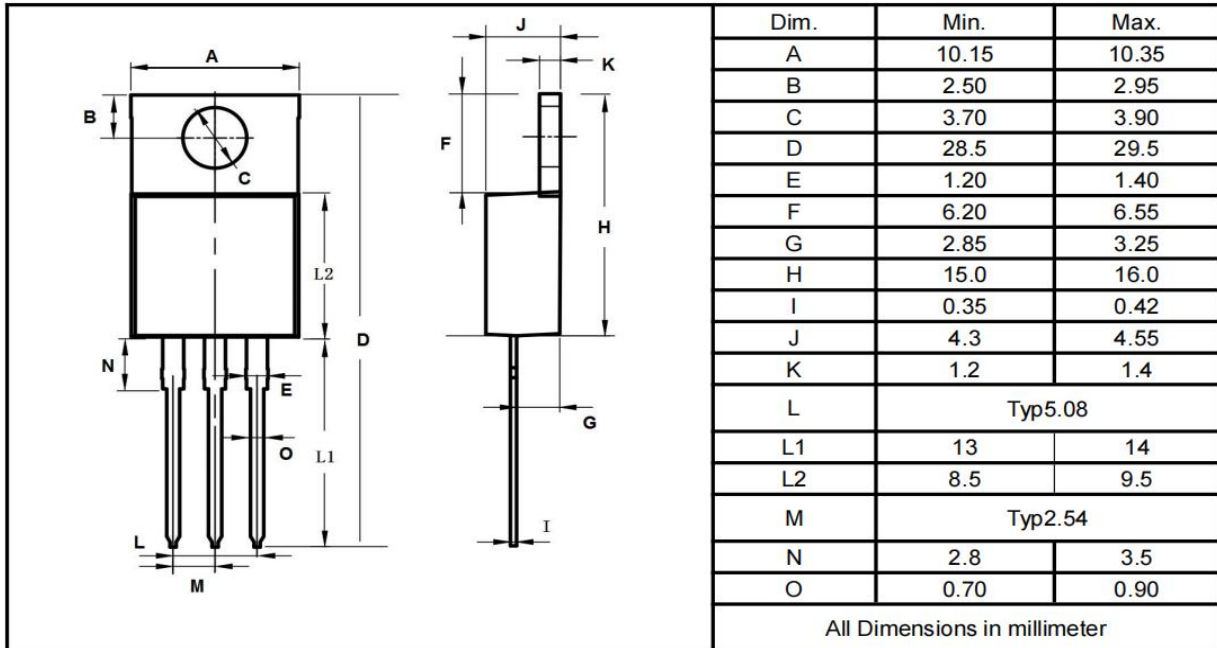
**Ordering information**

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
SRM10L300SCT	TO-220AB	0.07oz(1.96g)	50 pcs / tube	1000pcs/box 5000pcs/carton
SRM10L300SFCT	TO-220F	0.06oz(1.74g)	50 pcs / tube	1000pcs/box 5000pcs/carton
SRM10L300SDC	TO-263	0.04oz(1.16g)	800 pcs / reel	1600pcs/box 8000pcs/carton

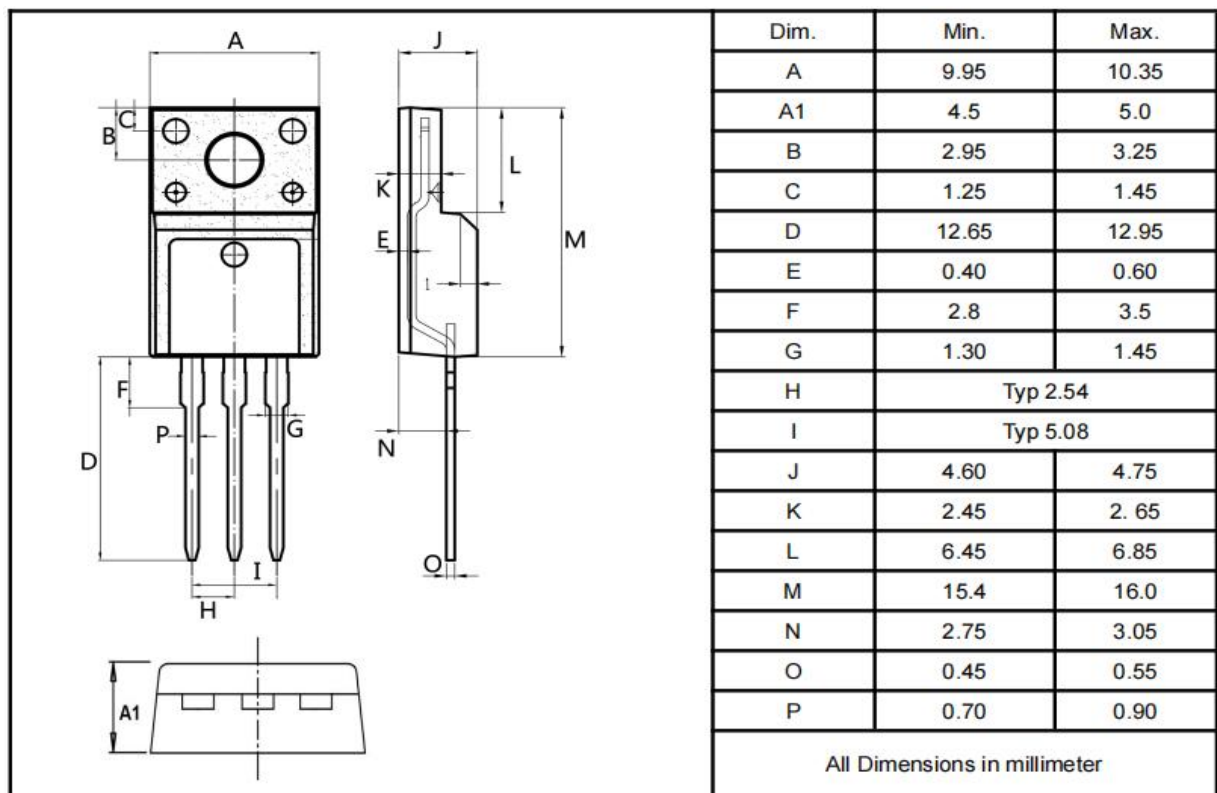
Note: For Halogen Free molding compound, add "H" suffix to part number above.

Package Outline Dimensions millimeters

**TO-220AB**



**TO-220F**



Package Outline Dimensions millimeters

TO-263

