



SBT40L150CT/FCT/DC

ULTRA LOW VF SCHOTTKY RECTIFIER

FEATURES

- Ultra 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℃ maximum,10s per JESD 22-B106

Primary Characteristic

I_O	2*20A
V_{RRM}	150V
I_{FSM}	300A
V_F	0.70V
T_{jmax}	150℃

Maximum Ratings at Ta=25℃ unless otherwise specified

Characteristics	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	150	V
Working Peak Reverse Voltage	V_{RWM}	150	V
Maximum DC Blocking Voltage	V_{DC}	150	V
Maximum Average Forward Rectified Current	I_O	Per Leg 20	A
		Total 40	
Peak Forward Surge Current,8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	300	A
Operating Temperature Range	T_J	-50 to +150	℃
Storage Temperature Range	T_{STG}	-50 to +150	℃
Typical Thermal Resistance (Note1)	$R_{\theta JC}$	TO-220AB,TO-263 2	℃/W
TO-220F		4	

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

Electrical Characteristics unless otherwise specified

Characteristics		Symbol	Value		Unit
Forward Voltage Drop(Note2)		V _F	Typ.	Max.	V
at I _F =5A	TA=25°C		0.57	-	
	TA=125°C		0.5	-	
at I _F =10A	TA=25°C		0.73	-	
	TA=125°C		0.6	-	
at I _F =20A	TA=25°C		1.02	1.2	
	TA=125°C		0.7	-	
Maximum Reverse Current at V _R =150V	TA=25°C	I _R	5	20	μA
	TA=125°C		5	-	mA

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



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RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

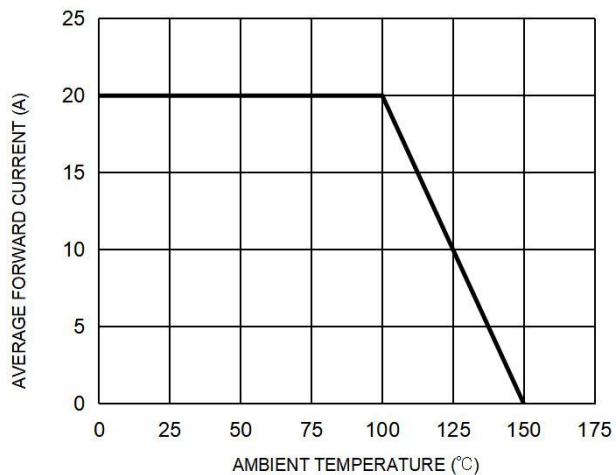


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

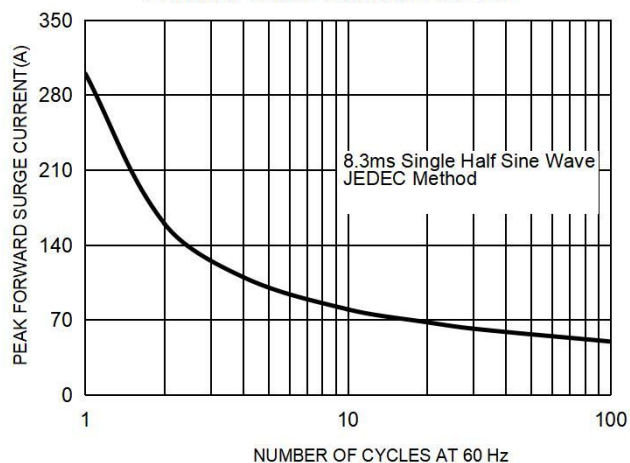


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

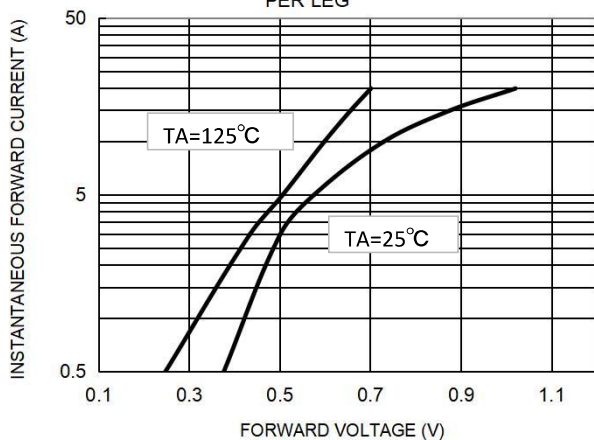
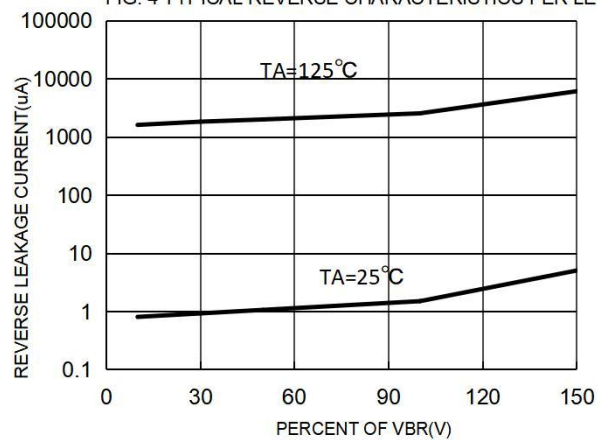
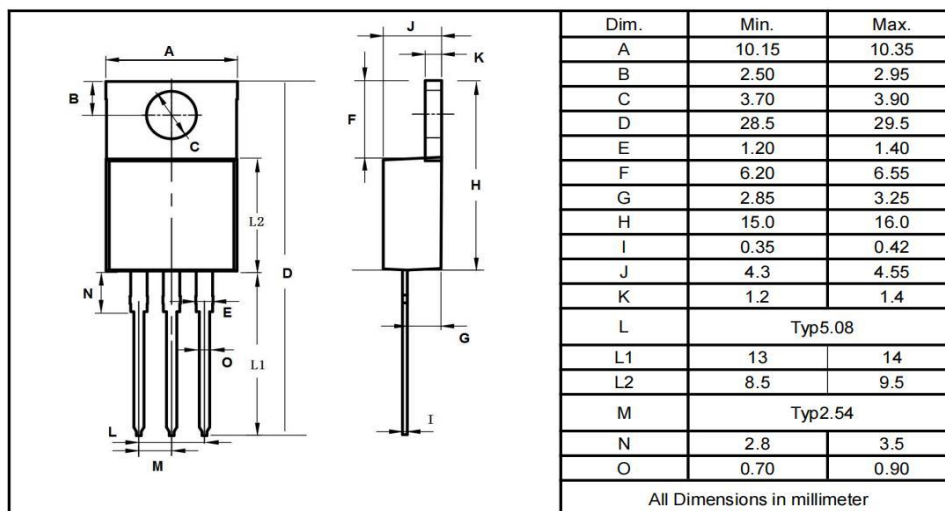


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

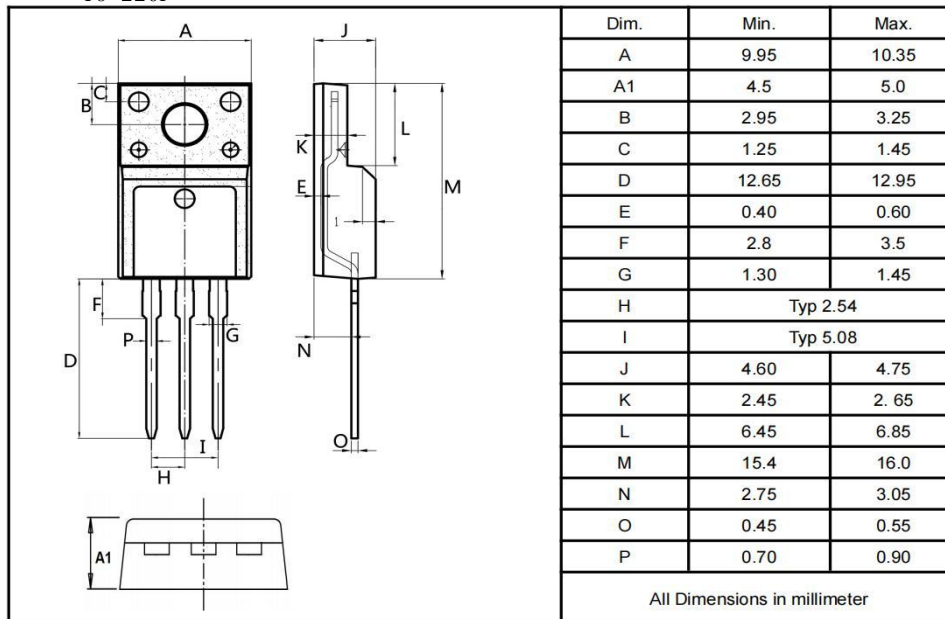


Package Outline Dimensions millimeters

TO-220AB



TO-220F



TO-263

