



# SBT3060VCT / SBT3060VFCT

## 30A 60V Schottky Rectifier

### Major ratings and characteristics

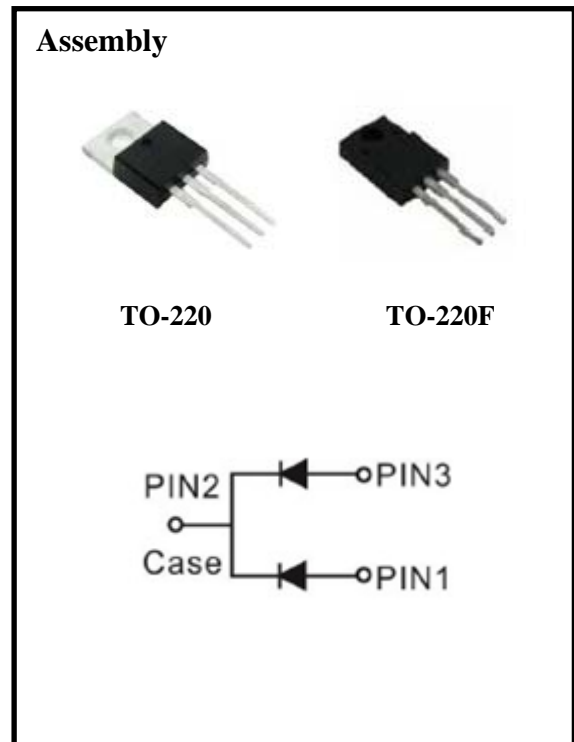
Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	15×2	A
$V_{RRM}$	60	V
$V_F@ 15A, T_j=25^\circ C$	0.50	V, typ.
$T_j$ Operating Junction Temperature	-40~150	°C

### Features

- Low Forward Voltage Drop
- Reliable High Temperature Operation
- Softest, Fast Switching Capability
- 150°C Operating Junction Temperature
- Lead Free Finish, RoHS Compliant

### Typical Applications

Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications



1. Characteristics

Maximum Ratings Characteristics

( T<sub>A</sub> = 25°C unless otherwise specified )

Parameter	Symbol	Values	Units
DC Blocking Voltage	V <sub>RM</sub>	60	Volts
Working Peak Reverse Voltage	V <sub>RWM</sub>		
Peak Repetitive Reverse Voltage	V <sub>RPM</sub>		
Average Rectified Forward Current Per device	I <sub>o</sub>	30	Amps
(Rated V <sub>R</sub> -20Khz Square Wave) - 50% duty cycle			
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I <sub>RRM</sub>	2	Amps
Typical Thermal Resistance (per leg)	R <sub>θjc</sub>	2	°C/W
Package = TO-220			
Package =TO-220F		4	
Human Body Model ESD Protection (TO-220)	ESD HBM	8	KV
Maximum Rate of Voltage Change ( at Rated V <sub>R</sub> )	dv/dt	10000	V/uS
Operating Junction Temperature	T <sub>J</sub>	-40~150	°C
Storage Junction Temperature	T <sub>STG</sub>	-40~150	°C

Electrical Characteristics - (per leg)

( T<sub>A</sub> = 25°C unless otherwise specified )

Parameter	Test Conditions	Symbol	Typ.	Max.	Units	
Instantaneous Forward Voltage	I <sub>F</sub> =5 A	T <sub>j</sub> =25°C	V <sub>F</sub> *	0.38	-----	Volts
	I <sub>F</sub> =15 A			0.50	0.54	
	I <sub>F</sub> =5 A	T <sub>j</sub> =125°C		0.32	-----	
	I <sub>F</sub> =15 A			0.44	0.48	
Instantaneous Reverse Current	V <sub>R</sub> =70 V	T <sub>j</sub> =25°C	I <sub>R</sub> *	8	-----	uA
	V <sub>R</sub> =100 V			18	80	uA
	V <sub>R</sub> =70 V	T <sub>j</sub> =125°C		-----	-----	mA
	V <sub>R</sub> =100 V			-----	5	mA

\* Pulse width < 300 uS, Duty cycle < 2%

## 2. Characteristics Curves

Ratings and Characteristics Curves

(  $T_A = 25^\circ\text{C}$  unless otherwise specified )

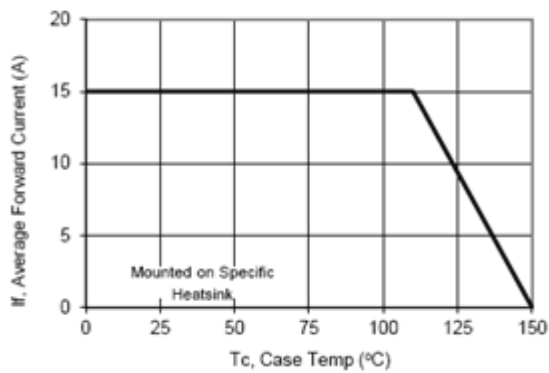


Figure 1: Current Derating, Case

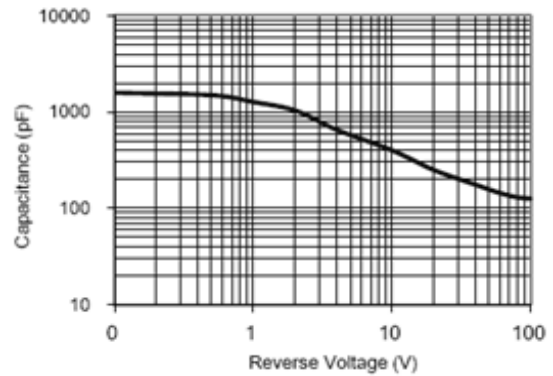


Figure 2: Typical Junction Capacitance

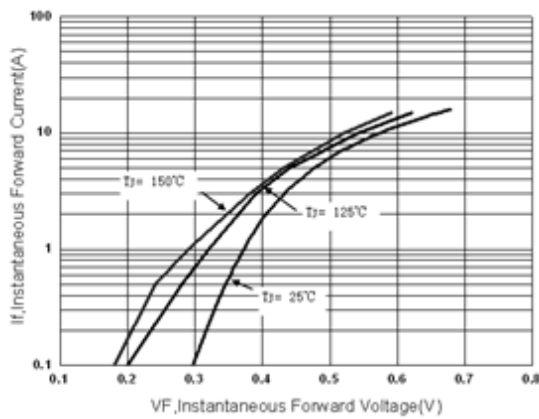


Figure 3: Typical Forward Voltage

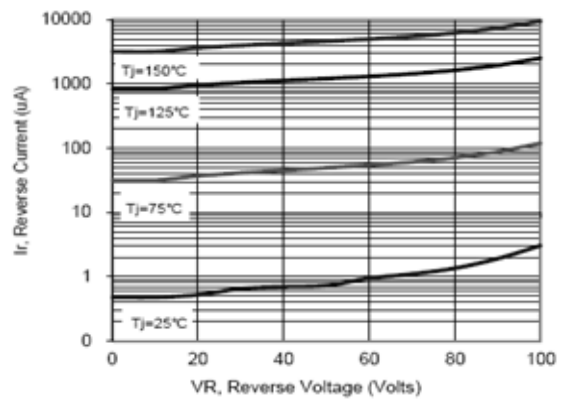
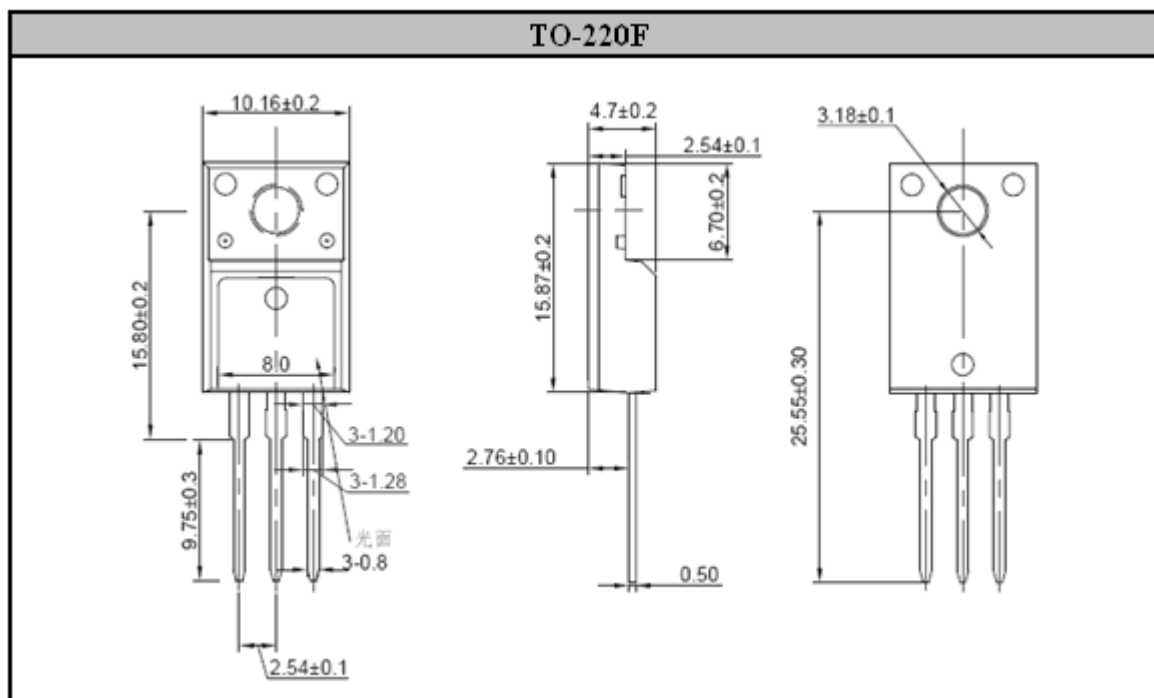
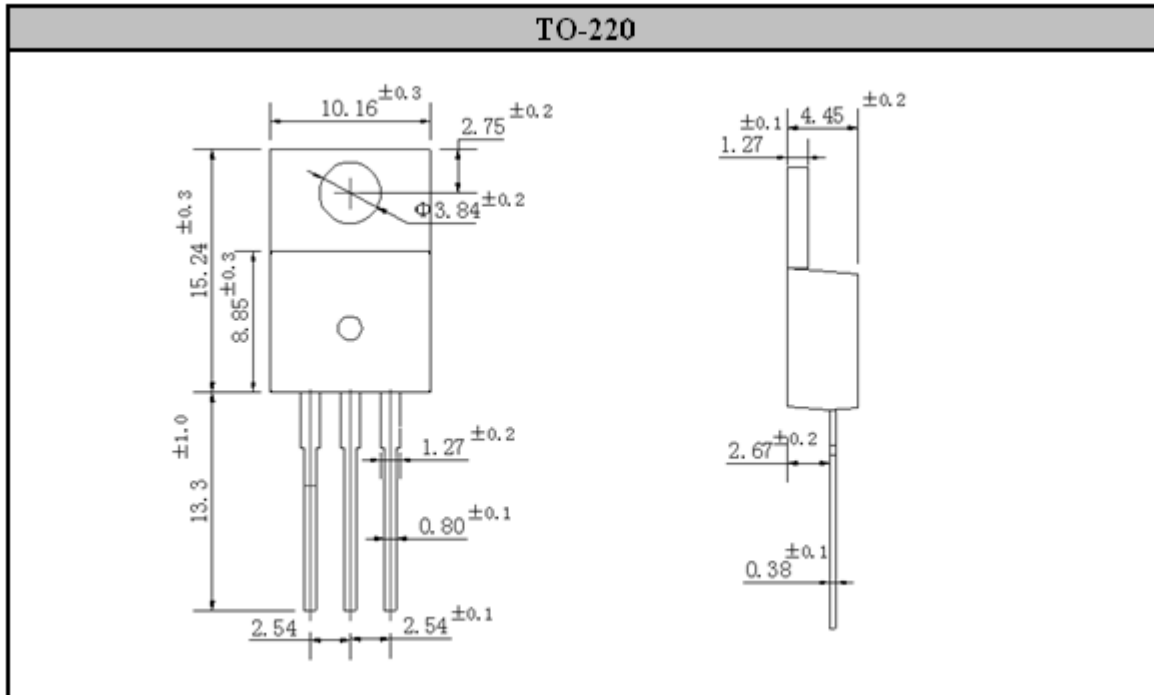


Figure 4: Typical Reverse Current

3. Package information

Package outline Dimensions millimeters



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