

# SB1645FCT

## SCHOTTKY BARRIER RECTIFIER

VOLTAGE: 45V

CURRENT: 16.0A

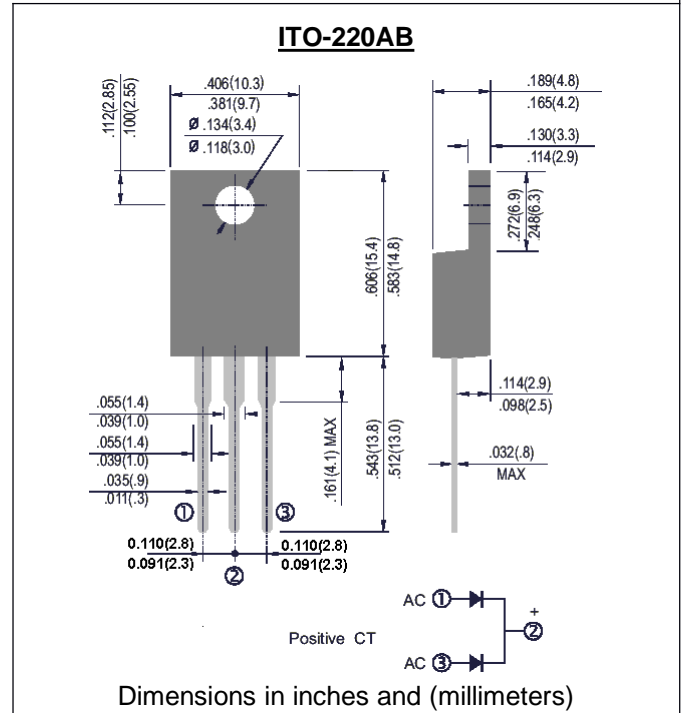


### FEATURE

High current capability, Low forward voltage drop  
Low power loss, high efficiency  
High surge capability  
High temperature soldering guaranteed  
250°C /10sec/0.375" lead length at 5 lbs tension

### MECHANICAL DATA

Case: JEDEC ITO-220 molded plastic body over passivated chip  
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026  
Polarity: Color band denotes cathode end  
Mounting Position: Any



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

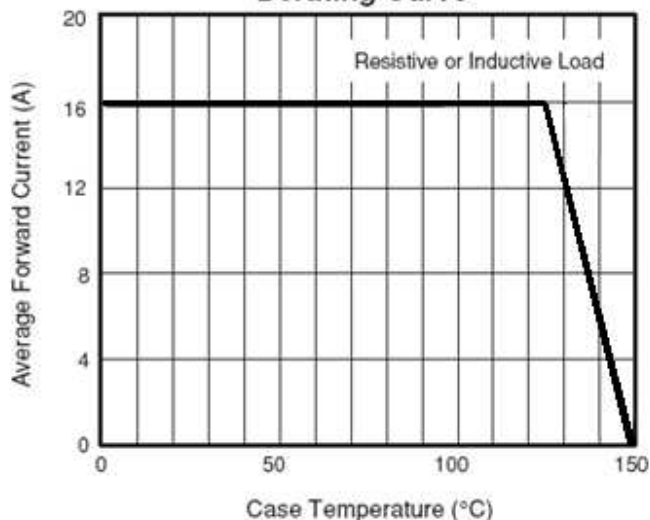
(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	SB1645FCT	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	45	V
Maximum RMS Voltage	V <sub>rms</sub>	31.5	V
Maximum DC blocking Voltage	V <sub>dc</sub>	45	V
Maximum Average Forward Rectified Current at T <sub>c</sub> =125°C	I <sub>f(av)</sub>	16	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load per leg	I <sub>fsm</sub>	150	A
Maximum Forward Voltage per leg and 25°C at 8A	V <sub>f</sub>	0.57	V
Maximum Reverse Current per leg at working peak reverse voltage	I <sub>r</sub>	0.2 40.0	mA
Typical Thermal Resistance per leg	R <sub>th(jc)</sub>	4.0	°C/W
Operating Junction Temperature Range	T <sub>j</sub>	-65 to +150	°C
Storage Temperature Range	T <sub>stg</sub>	-65 to +175	°C

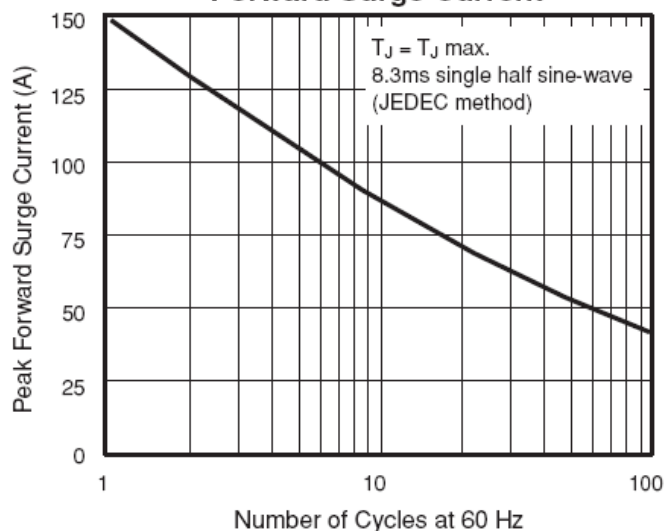
Note:

1. Thermal Resistance from Junction to Case

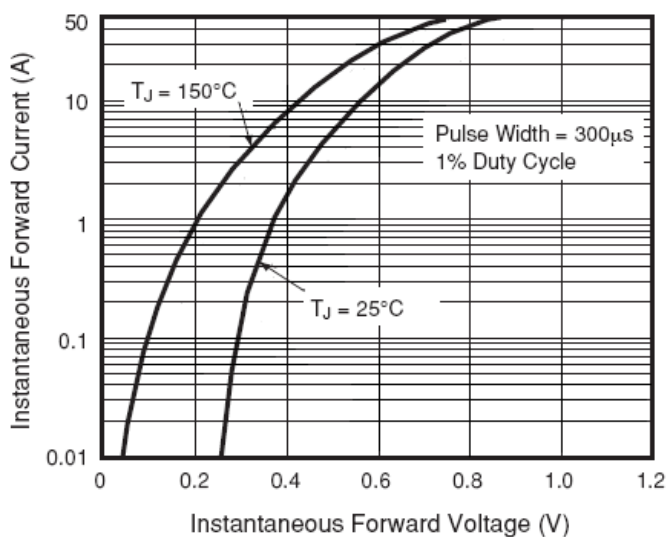
**Fig. 1 - Forward Current Derating Curve**



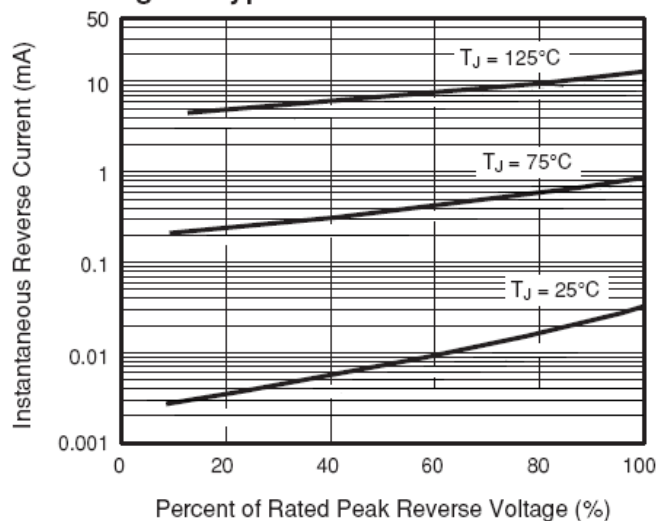
**Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current**



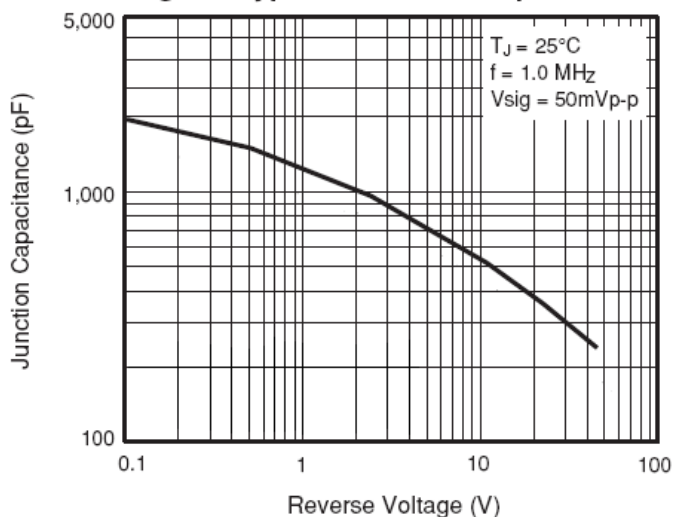
**Fig. 3 - Typical Instantaneous Forward Characteristics**



**Fig. 4 - Typical Reverse Characteristics**



**Fig. 5 - Typical Junction Capacitance**



**Fig. 6 - Typical Transient Thermal Impedance**

