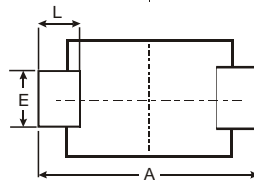
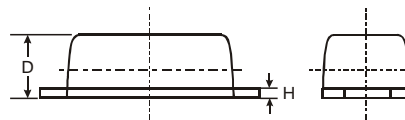
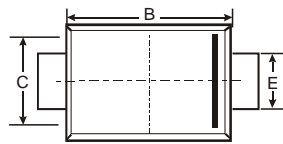
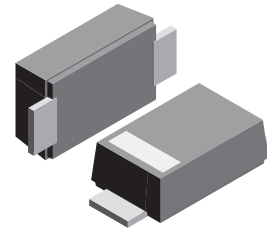


**VOLTAGE RANGE: 150 - 200V**  
**CURRENT: 5.0 A**

### Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-0



SMBF			
Dim	Min	Max	Typ
A	5.45	5.55	5.50
B	4.27	4.33	4.30
C	3.57	3.63	3.60
D	1.32	1.38	1.35
E	1.96	2.00	1.98
H	0.019	0.021	0.20
L	0.73	0.77	0.75

All Dimensions in mm

### Mechanical Data

- Case: SMBF , Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.0018 ounces, 0.05grams



### Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

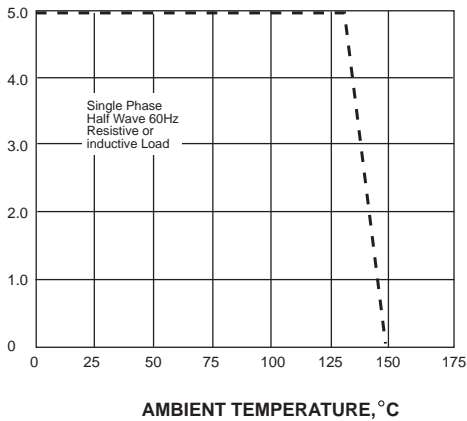
Characteristic	Symbol	SK5150BF	SK5200BF	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	150	200	Volts
Maximum RMS voltage	V <sub>RMS</sub>	105	150	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	150	200	Volts
Maximum average forward rectified current at T <sub>L</sub> (see fig.1)	I <sub>(AV)</sub>	5.0		Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	150.0		Amps
Maximum instantaneous forward voltage at 5.0A	V <sub>F</sub>	0.85	0.95	Volts
Maximum DC reverse current at rated DC blocking voltage <small>T<sub>A</sub>=25°C</small> <small>T<sub>A</sub>=100°C</small>	I <sub>R</sub>	0.2		mA
		2.0		
Typical junction capacitance (NOTE 1)	C <sub>J</sub>	200		pF
Typical thermal resistance (NOTE 2)	R <sub>θJA</sub>	50.0		°C/W
Operating junction temperature range	T <sub>J</sub>	-50 to +150		°C
Storage temperature range	T <sub>STG</sub>	-50 to +150		°C

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
 2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

## RATINGS AND CHARACTERISTIC CURVES SK5150BF THRU SK5200BF

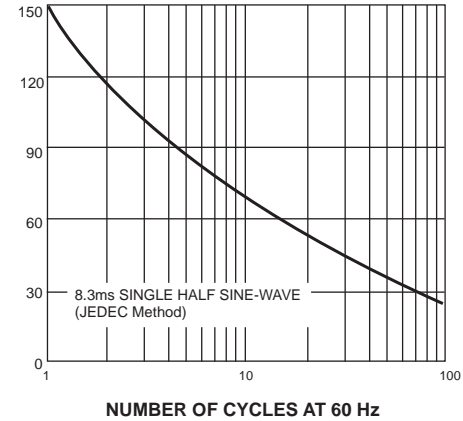
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



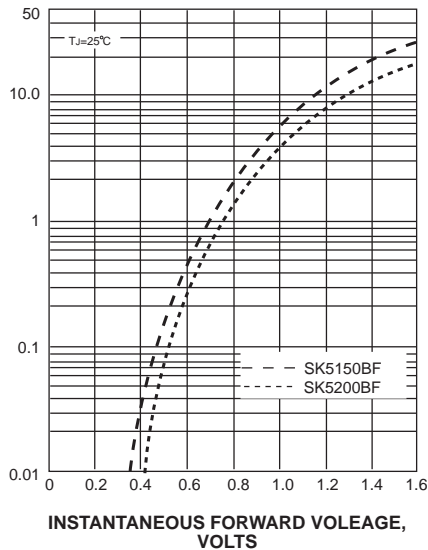
PEAK FORWARD SURGE CURRENT, AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



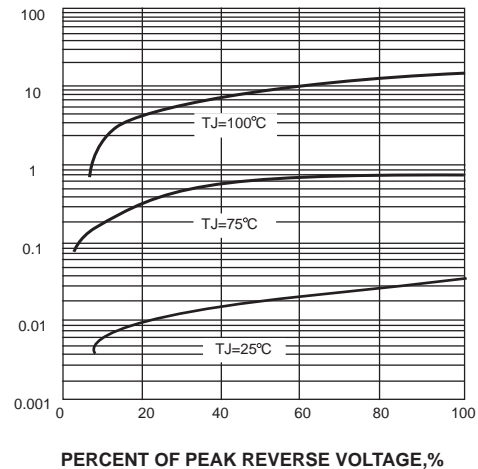
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



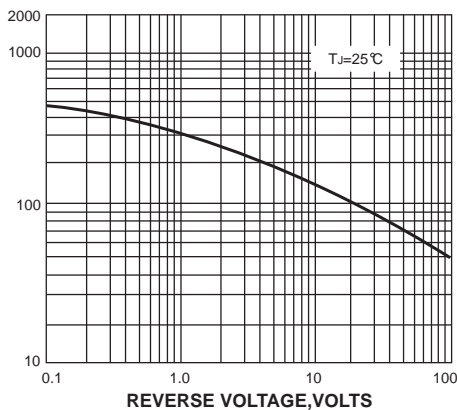
INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

