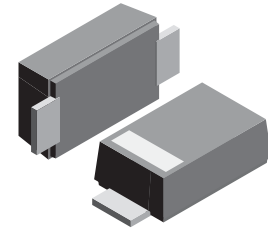


**VOLTAGE RANGE: 150 - 200V**

**CURRENT: 5.0 A**

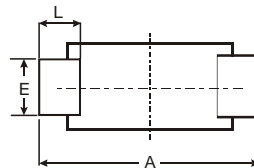
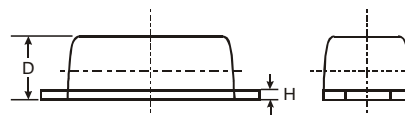
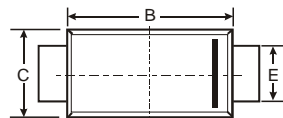
### Features

- 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-O



### Mechanical Data

- Case: SMAF, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.0018 ounce, 0.064 grams



SMAF			
Dim	Min	Max	Typ
A	4.75	4.85	4.80
B	3.68	3.72	3.70
C	2.57	2.63	2.60
D	0.097	1.03	1.00
E	1.38	1.42	1.40
H	0.13	0.17	0.15
L	0.63	0.67	0.65
All Dimensions in mm			



### 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%.

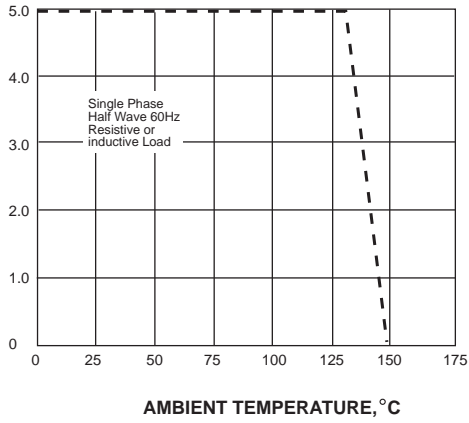
Characteristic	Symbol	SK5150AF	SK5200AF	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	150	200	Volts
Maximum RMS voltage	V <sub>RMS</sub>	105	150	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	150	200	Volts
Maximum average forward rectified current at T <sub>L</sub> (see fig.1)	I <sub>(AV)</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 T <sub>A</sub> =25°C at rated DC blocking voltage T <sub>A</sub> =100°C	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 SK5150AF THRU SK5200AF

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

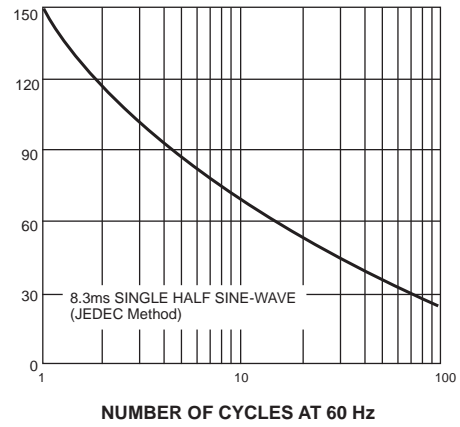


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

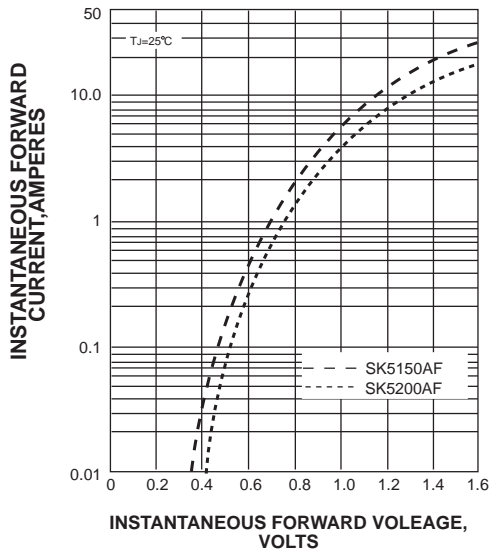


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

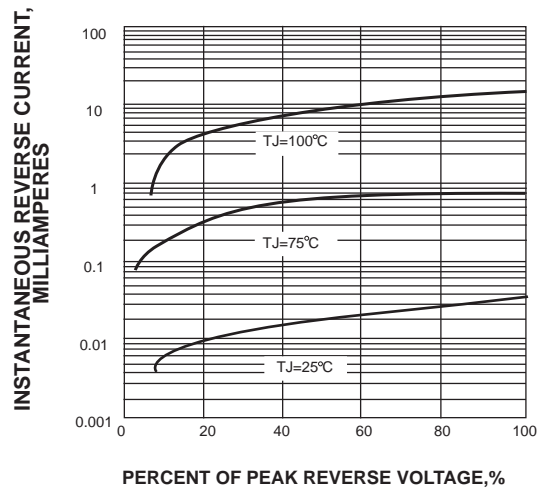
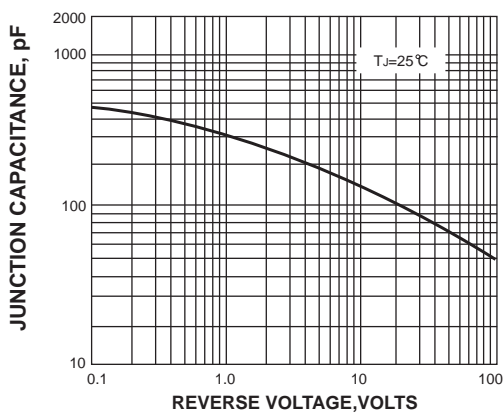


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

