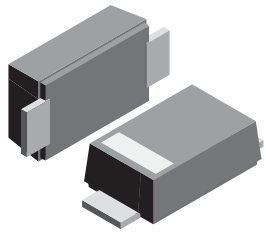
SK5150AF - SK5200AF

SURFACE MOUNT SCHOTTKY BARRIER DIODES

VOLTAGE RANGE: 150 - 200V
CURRENT: 5.0 A

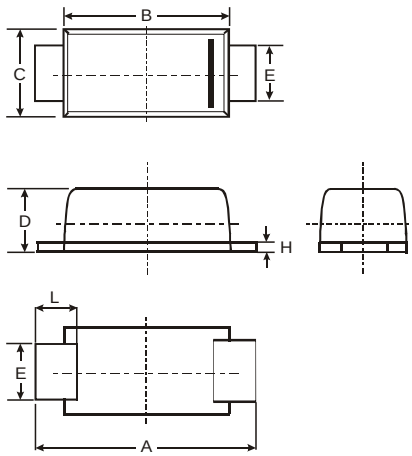


Features

- 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_A = 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_{RRM}	150	200	Volts
Maximum RMS voltage	V_{RMS}	105	150	Volts
Maximum DC blocking voltage	V_{DC}	150	200	Volts
Maximum average forward rectified current at T_L(see fig.1)	$I_{(AV)}$	5.0		Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150.0		Amps
Maximum instantaneous forward voltage at 5.0A	V_F	0.85	0.95	Volts
Maximum DC reverse current T_A=25℃	I_R	0.2		mA
at rated DC blocking voltage T_A=100℃		2.0		
Typical junction capacitance (NOTE 1)	C_J	200		pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	50.0		°C/W
Operating junction temperature range	T_J,	-50 to +150		°C
Storage temperature range	T_{STG}	-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

FIG. 1- FORWARD CURRENT DERATING CURVE

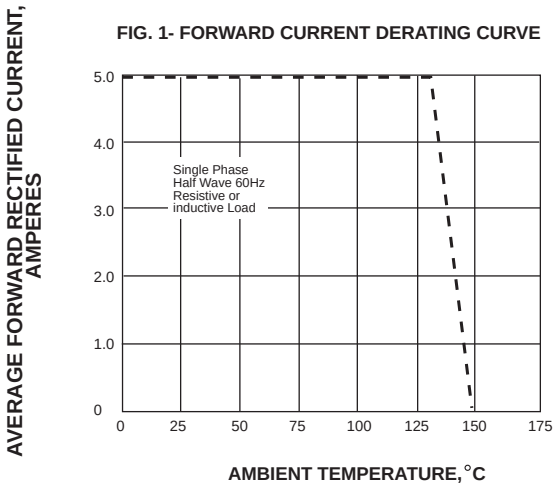


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

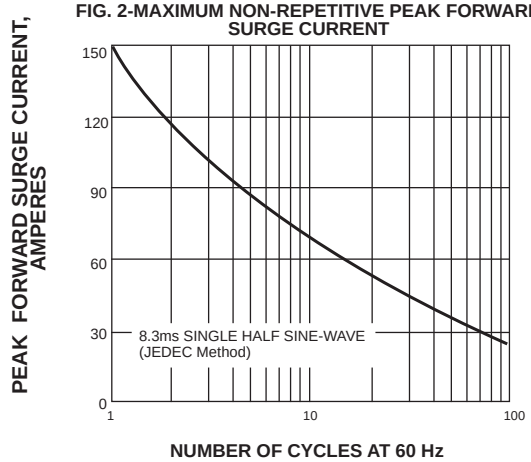


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

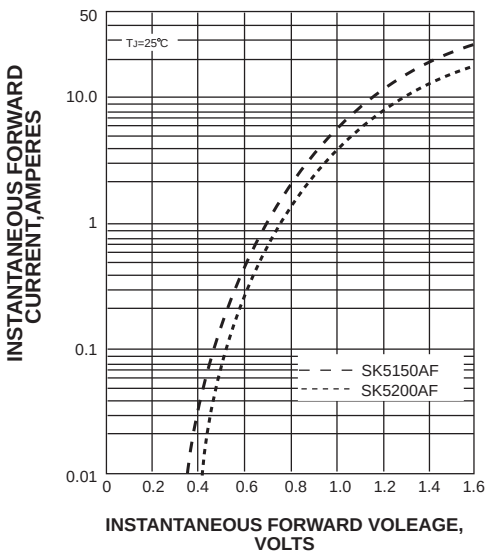


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

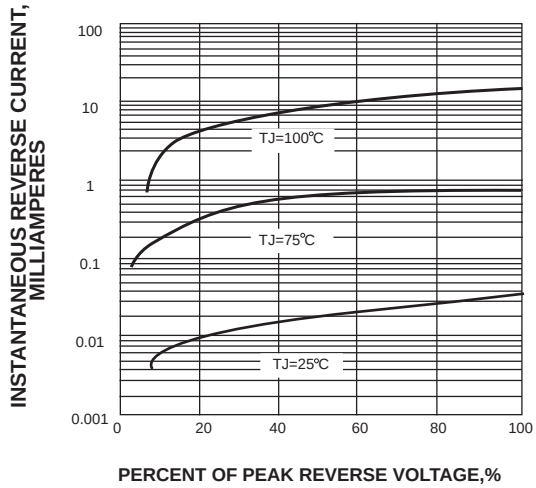


FIG. 5-TYPICAL JUNCTION CAPACITANCE

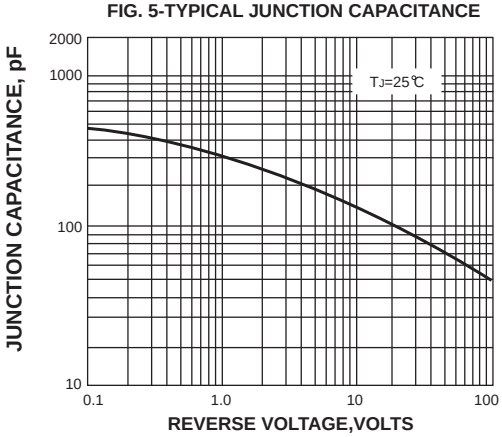
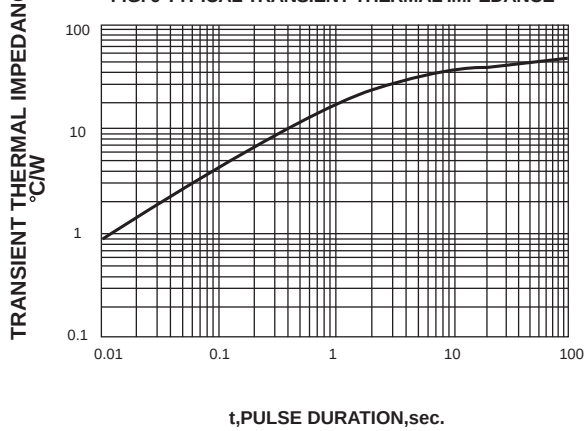



FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE