

Features

- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant(Note 2) ("P" Suffix Designates Compliant. See Ordering Information)
- High Junction Temperature Capability
- Low Leakage Current
- Low Profile Package

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +175°C
- Storage Temperature Range: -55°C to +175°C
- Typical Thermal Resistance: 65°C/W Junction to Ambient(Note 3)
- Typical Thermal Resistance: 25°C/W Junction to Lead(Note 3)
- Typical Thermal Resistance: 15°C/W Junction to Case(Note 3)

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SK510BFL	SK510	100V	70V	100V

Electrical Characteristics @ 25°C Unless Otherwise Specified

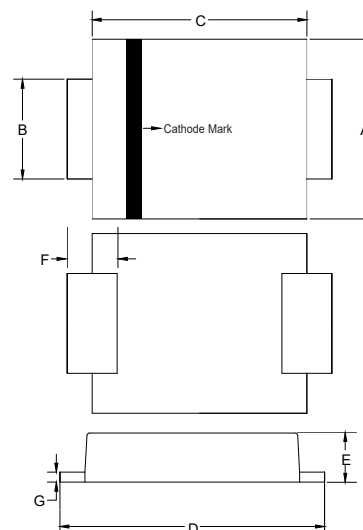
Average Forward Current	$I_{F(AV)}$	5A	$T_C=110^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	120A	8.3ms, Half Sine Wave
Instantaneous Forward Voltage	V_F	0.72V(Typ) 0.77V(Typ) 0.85V(Max) 0.68V(Max)	$I_{FM}=3\text{ A}; T_J=25^\circ\text{C}$ $I_{FM}=5\text{ A}; T_J=25^\circ\text{C}$ $I_{FM}=5\text{ A}; T_J=25^\circ\text{C}$ $I_{FM}=5\text{ A}; T_J=125^\circ\text{C}$
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5uA 2mA	$T_J=25^\circ\text{C};$ $T_J=125^\circ\text{C}$
Typical Junction Capacitance	C_J	150pF	Measured at 1.0MHz $V_R=4.0\text{V}$

Note :

1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemption Applied, See EU Directive Annex Notes 7a.
3. Device Mounted on p.c.b. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas.

5 Amp Schottky Barrier Rectifier 100V

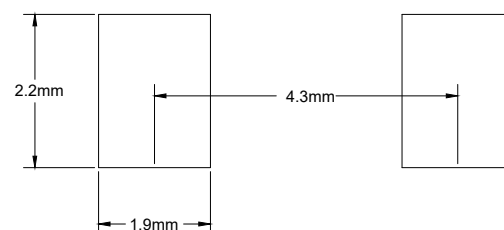
SMBF



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.134	0.150	3.40	3.80	
B	0.075	0.083	1.90	2.10	
C	0.163	0.175	4.15	4.45	
D	0.201	0.220	5.10	5.60	
E	0.041	0.061	1.05	1.55	
F	0.028	0.053	0.70	1.35	
G	0.006	0.010	0.15	0.25	

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

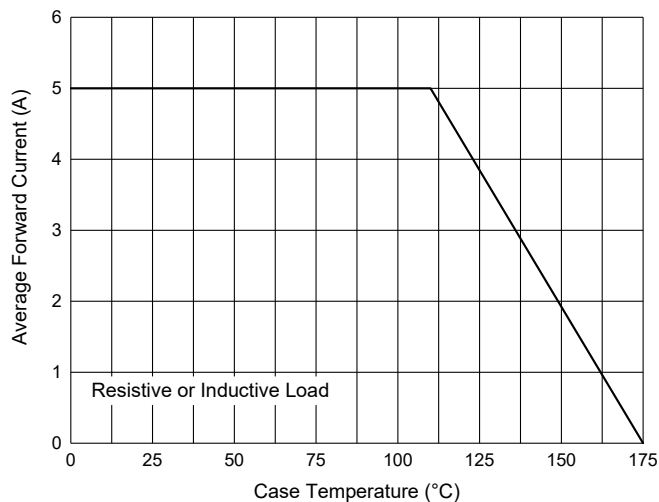


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

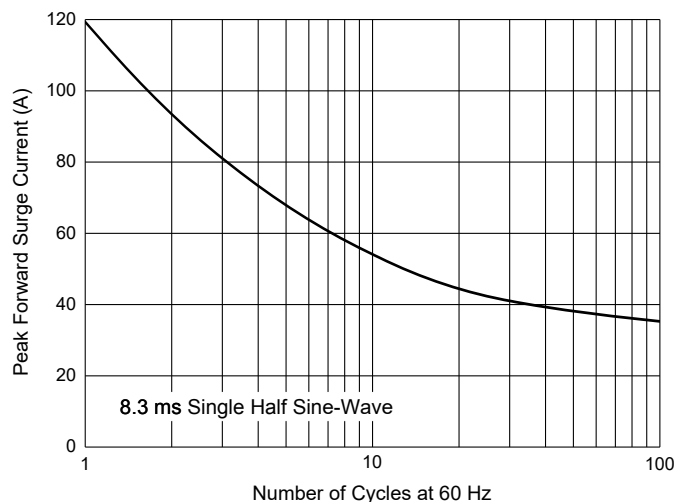


Fig. 3 - Typical Instantaneous Forward Characteristics

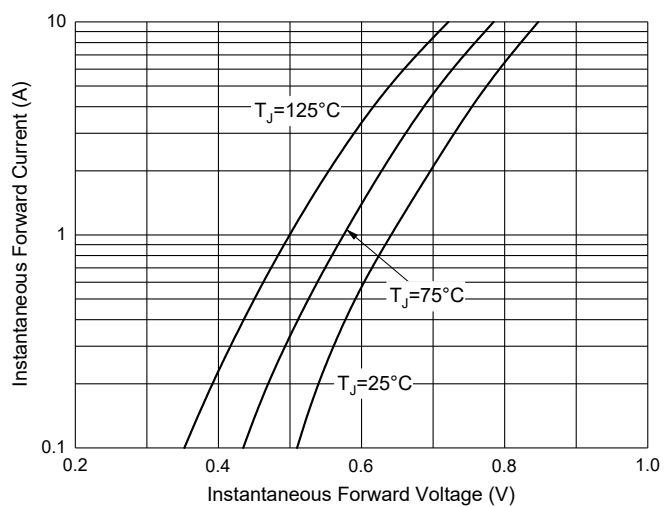
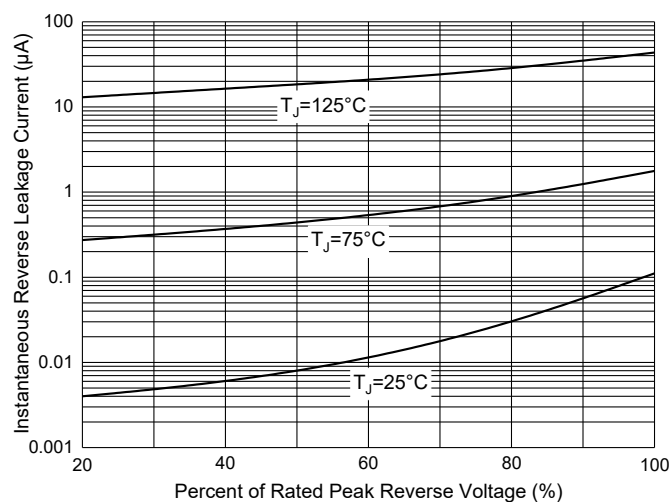


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

Device	Packing
SK510BFL-TP	Tape&Reel: 5Kpcs

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