

**FEATURES**

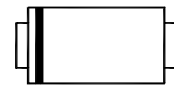
- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- Built-in strain relief, ideal for automated placement
- Low power loss, high efficiency.
- High forward surge current capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0



SOD-123FL

**MECHANICAL DATA**

- Case: SOD-123FL Molded plastic
- Terminals: Pure tin plated, lead free
- Polarity: Indicated by cathode band
- Weight: 11.5 mg (approx.)



Cathode

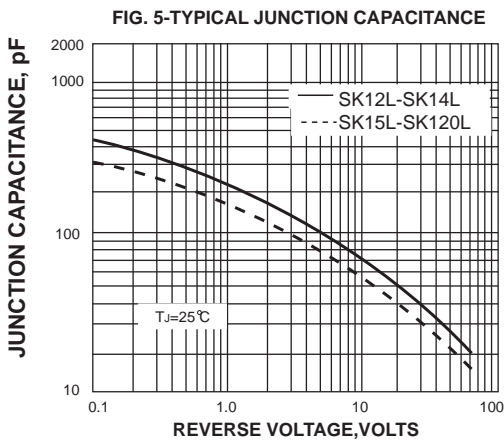
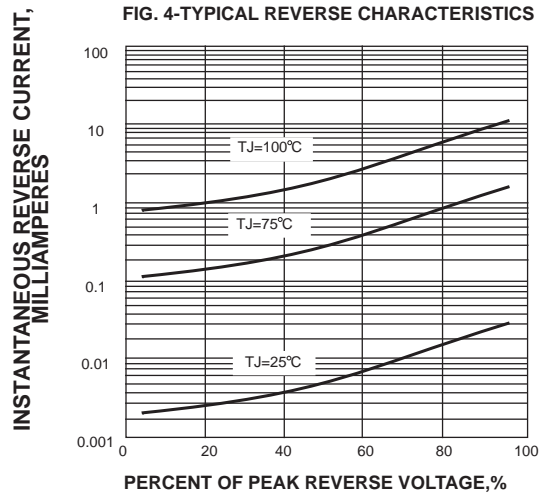
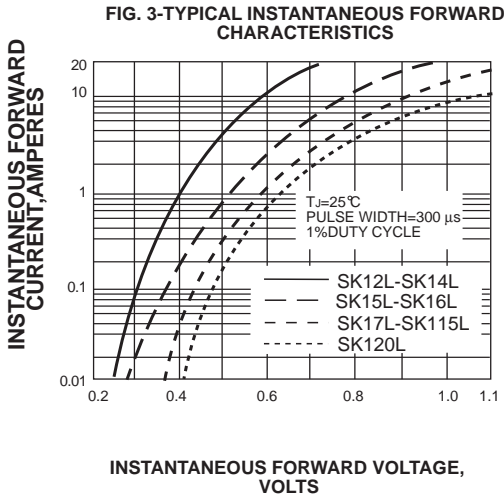
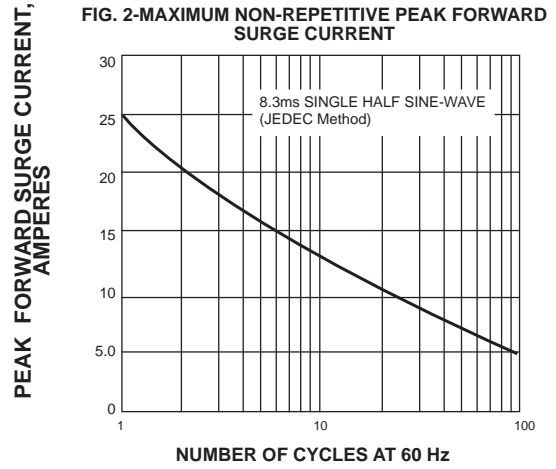
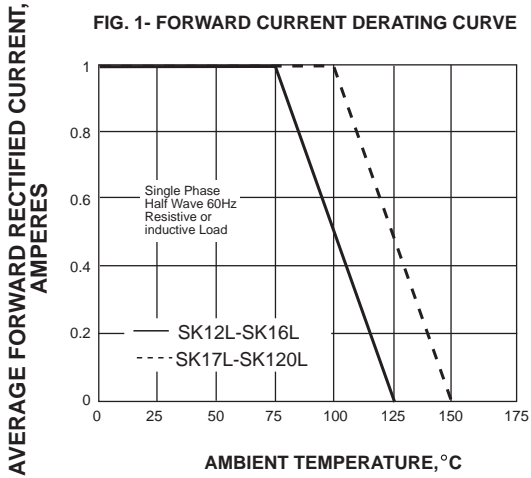
**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave ,60Hz, resistive or inductive load. For capacitive load, derate current by 20%

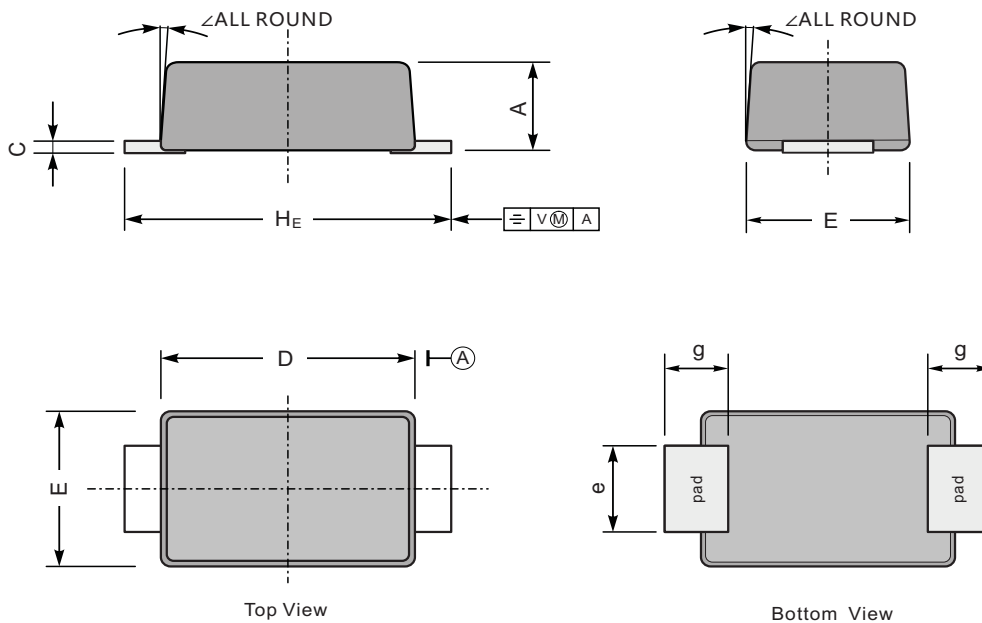
Parameter	Symbol	SK 12L	SK 13L	SK 14L	SK 15L	SK 16L	SK 18L	SK 110L	SK 115L	SK 120L	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1.0									A
Peak Forward Surge Current 8.3 ms Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	30.0									A
Maximum Instantaneous Forward Voltage at 1A	$V_F$	0.45	0.55	0.70	0.85	0.95					V
Maximum DC Reverse Current Cat Rated DC Blocking Voltage	$I_R$	@ $T_A = 25^\circ C$					0.5			0.2	mA
		@ $T_A = 100^\circ C$					10.0		5.0	2.0	mA
Typical Junction Capacitance(Note1)	$C_j$	110			90					pF	
Typical Thermal Resistance (Note2)	$R_{\theta JA}$	88									°C/w
Operating 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

**Typical Characteristics**



**SOD-123FL Package Outline Dimensions**



UNIT		A	C	D	E	e	g	$H_E$	$\angle$
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	