

### SCHOTTKY BARRIER RECTIFIERS

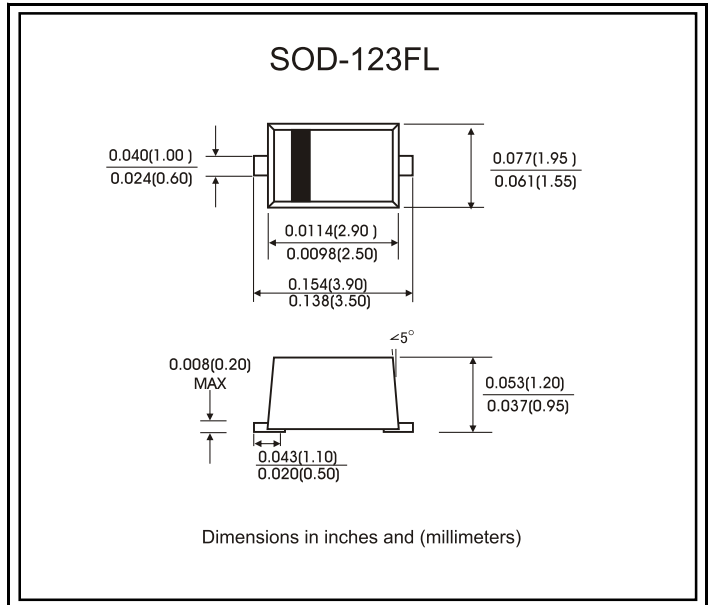
VOLTAGE RANGE: 20 --- 200 V  
CURRENT: 1.0 A

#### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:250 C/10 seconds at terminals, 0.375"(9.5mm)lead length,5lbs.(2.3kg)tension

#### MECHANICAL DATA

- Case: SOD-123FL molded plastic body
- Lead Finish: 100% Matte Sn (Tin)
- Polarity: color band denotes cathode end
- Mounting Position: Any
- Weight: 11.7 mg(approximately)



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 C ambient temperature unless otherwise specified.

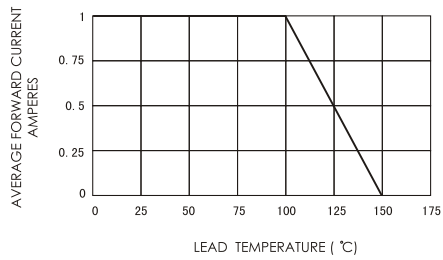
Single phase,half wave,60 Hz,resistive or inductive load. For capacitive load,derate by 20%.

	Symbols	K12	K13	K14	K15	K16	K18	K1A	K1B	K1D	Volts
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	57	71	105	140	Volts
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	Volts
Maximum average forward rectified current (See Fig. 1)	$I_{(AV)}$	1.0									Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	40.0									Amps
Maximum instantaneous forward voltage at 1.0 A(note 1)	$V_F$	0.55		0.75		0.85		0.90		0.95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	$I_R$	$T_a = 25^{\circ}C$									mA
		$T_a = 100^{\circ}C$									
Typical thermal resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	88.0									$^{\circ}C/W$
		28.0									
Operating junction temperature range	$T_J$	-65 to +150									$^{\circ}C$
Storage temperature range	$T_{STG}$	-65 to +150									$^{\circ}C$

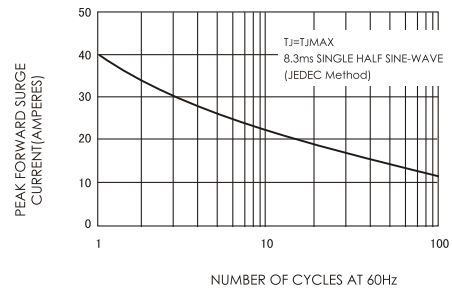
NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance from junction to ambient.

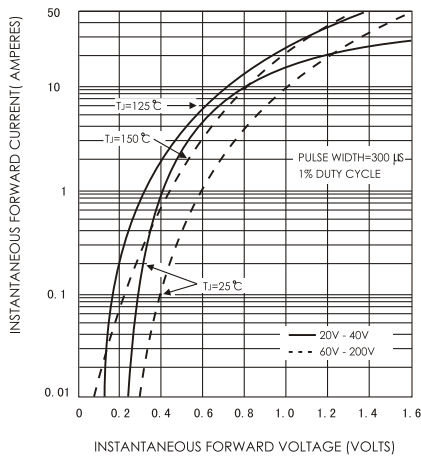
**FIG.1-FORWARD CURRENT DERATING CURVE**



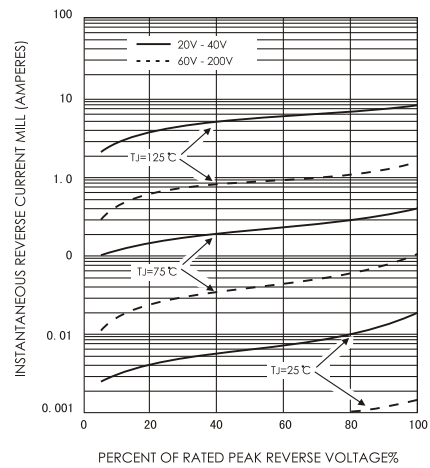
**FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



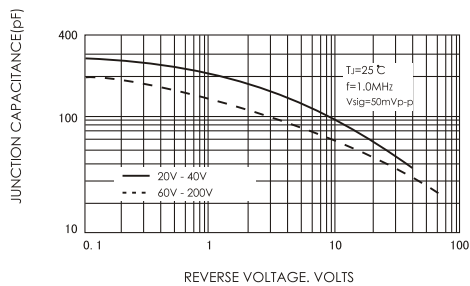
**FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4-TYPICAL REVERSE CHARACTERISTICS**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**



**FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE**

