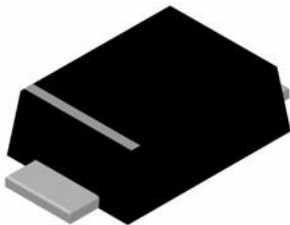


**SOD-123FL**

**Features**

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High forward surge current capability
- High temperature soldering guaranteed:  
250°C/10 seconds, 0.375(9.5mm) lead length,  
5 lbs. (2.3kg) tension

**Mechanical Data**

- SOD 123FL small outline plastic package
- Polarity: Color band denotes cathode end
- Epoxy UL: 94V-0
- Mounting Position: Any

**Maximum Ratings & Thermal Characteristics**

(Ratings at 25°C ambient temperature unless otherwise specified.)

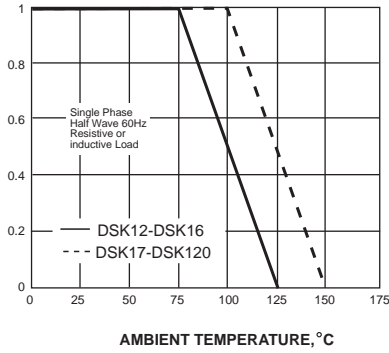
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

MDD Catalog Number	SYMBOLS	DSS12 K12	DSS13 K13	DSS14 K14	DSS15 K15	DSS16 K16	DSS17 K17	DSS18 K18	DSS19 K19	DSS110 K110	DSS115 K115	DSS120 K120	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	70	80	90	100	150	200	VOLTS
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	49	56	63	70	105	140	VOLTS
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	70	80	90	100	150	200	VOLTS
Maximum average forward rectified current	$I_{(AV)}$	1.0											Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	25.0											Amps
Maximum instantaneous forward voltage at 1.0A	$V_F$	0.55		0.70			0.85			0.95		Volts	
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	$I_R$	0.5					10.0					0.2 2.0	mA
Typical junction capacitance (NOTE 1)	$C_J$	110					80					pF	
Operating junction temperature range	$T_J$	-55 to +125					-55 to +150					°C	
Storage temperature range	$T_{STG}$	-55 to +150											°C

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

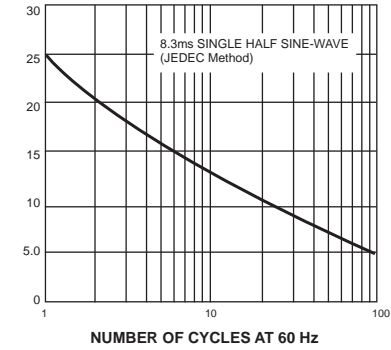
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



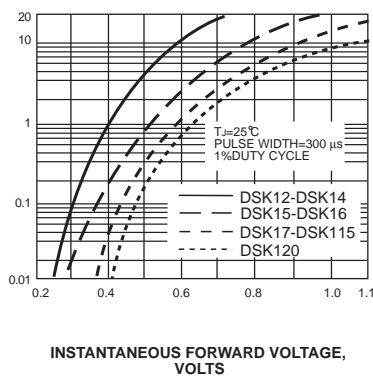
PEAK FORWARD SURGE CURRENT, AMPERES

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



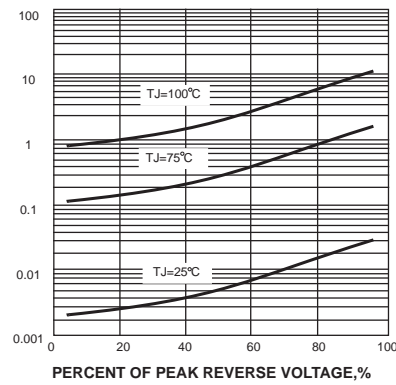
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



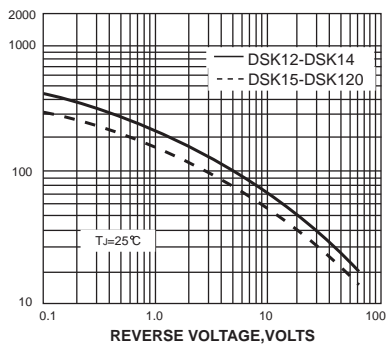
INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

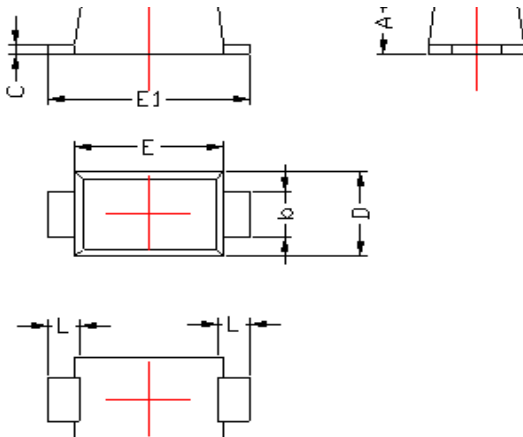


JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



**SOD-123FL PACKAGE OUTLINE** Plastic surface mounted package



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	1.20	1.40
b	0.80	1.10
C	0.15	0.25
D	1.75	1.95
E	2.70	2.90
E1	3.50	3.90
L	0.35	0.85