



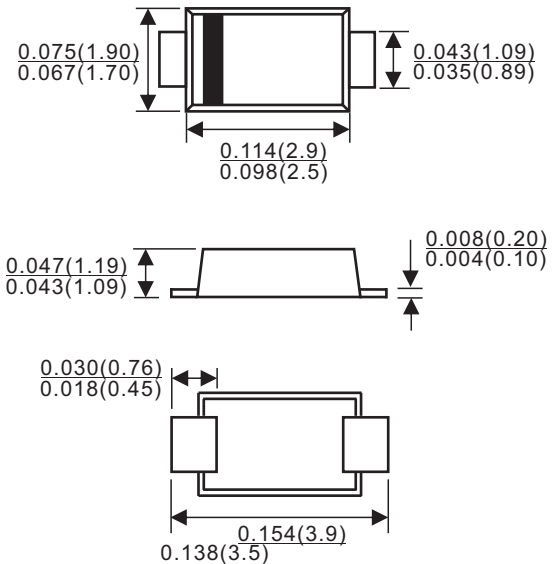
Features

- ✧ Low profile package
- ✧ Ideal for automated placement
- ✧ Ultrafast reverse recovery time
- ✧ Low power losses, high efficiency
- ✧ Low forward voltage drop
- ✧ High surge capability
- ✧ High temperature soldering:
260°C/10 seconds at terminals
- ✧ Component in accordance to
RoHS 2002/95/1 and WEEE 2002/96/EC

Mechanical Data

- ✧ **Case:** JEDEC SOD-123FL molded plastic body over passivated chip
- ✧ **Terminals:** Solder plated, solderable per J-STD-002B and JESD22-B102D
- ✧ **Polarity:** Laser band denotes cathode end

SOD-123FL



Dimensions in inches and (millimeters)

Maximum Ratings & Thermal Characteristics & Electrical Characteristics

(TA = 25 °C unless otherwise noted)

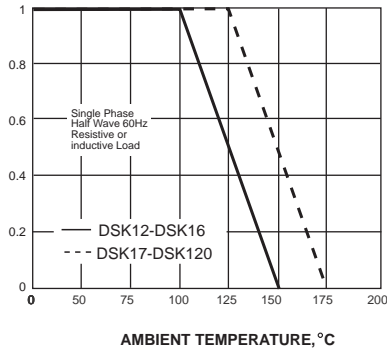
Parameter	SYMBOLS	DSK12	DSK13	DSK14	DSK15	DSK16	DSK17	DSK18	DSK19	DSK110	DSK115	DSK120	UNITS	
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	70	80	90	100	150	200	VOLTS	
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	49	56	63	70	105	140	VOLTS	
Maximum DC blocking voltage	V_{DC}	20	30	40	50	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 TA=25°C at rated DC blocking voltage TA=100°C	I_R	0.5					0.2			2.0			mA	
		10.0			5.0									
Typical junction capacitance (NOTE 1)	C_J	110				80								pF
Operating junction temperature range	T_J	-65 to +150						-65 to +175						°C
Storage temperature range	T_{STG}	-65 to +175											°C	

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

Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

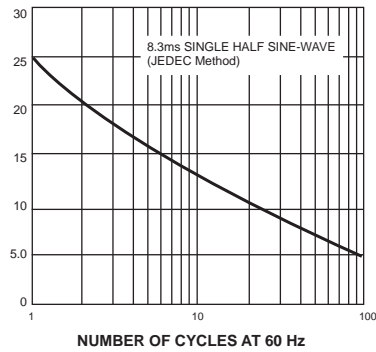
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



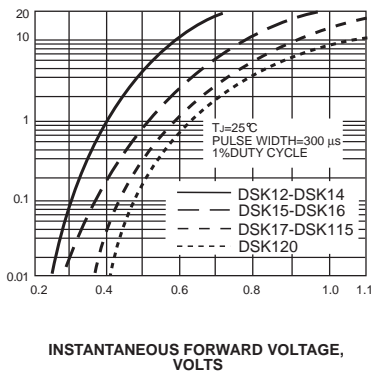
PEAK FORWARD SURGE CURRENT, AMPERES

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



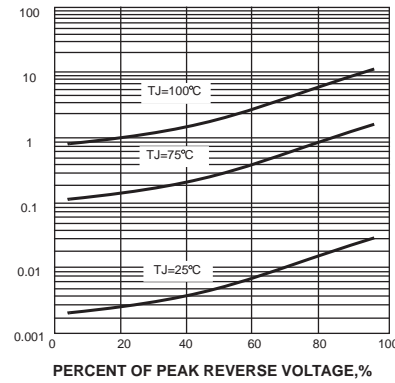
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



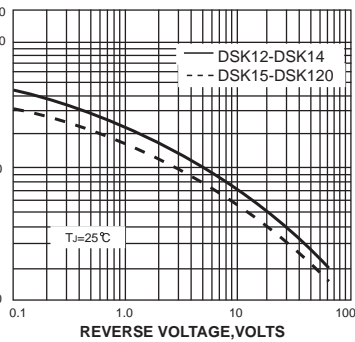
INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SOD-123FL	3000/REEL	90000	40X20X22	5.00	4.00