

**SURFACE MOUNT  
SUPER FAST GLASS PASSIVATED  
RECTIFIERS**

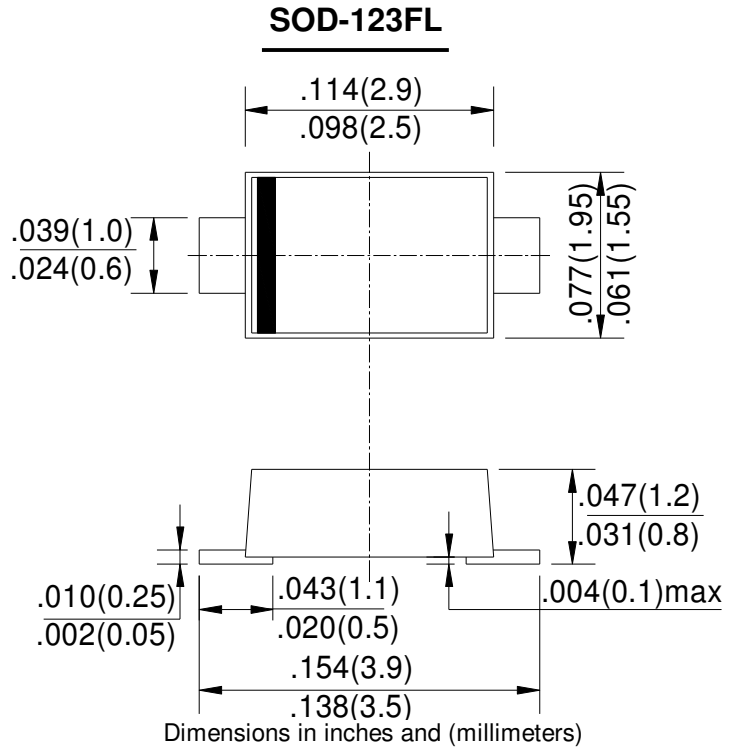
REVERSE VOLTAGE - 50 to 400Volts  
FORWARD CURRENT - 1.0 Ampere

**FEATURES**

- Low profile space
- Ideal for automated placement
- Glass passivated chip junctions
- Low forward voltage drop
- Low leakage current
- High forward 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 glass passivated chip
- Terminals: Solder plated, solderable per J-STD-002B and JESD22-B102D
- Polarity: Laser band denotes cathode end
- Weight: 0.017gram



**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%

CHARACTERISTICS	SYMBOL	ES1AL	ES1BL	ES1CL	ES1DL	ES1FL	ES1GL	UNIT
	MARKING	E1AL	E1BL	E1CL	E1DL	E1FL	E1GL	
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	150	200	300	400	V
Maximum RMS Voltage	VRMS	35	70	105	140	210	280	V
Maximum DC Blocking Voltage	VDC	50	100	150	200	300	400	V
Maximum Average Forward Rectified Current	I(AV)	1.0						A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method)	IFSM	25						A
Maximum Instantaneous Forward Voltage at 1.0A DC	VF	0.95			1.25			V
Maximum DC Reverse Current @TA=25°C at Rated DC Blocking Voltage @TA=100°C	IR	5.0			150			µA
Maximum Reverse recovery time @IF=0.5A,IR=1.0A,Irr=0.25A	trr	35						nS
Typical Thermal Resistance	RθJA	150						°C/W
Operating Temperature Range	TJ	-55 to +150						°C
Storage Temperature Range	TSTG	-55 to +150						°C

Note1: Mounted on FR-4 P.C.B. With 0.9x1.5 mm copper pad areas (≈35 µm thick)

# RATING AND CHARACTERISTIC CURVES

ES1AL thru ES1GL



FIG. 1 - FORWARD CURRENT DERATING CURVE

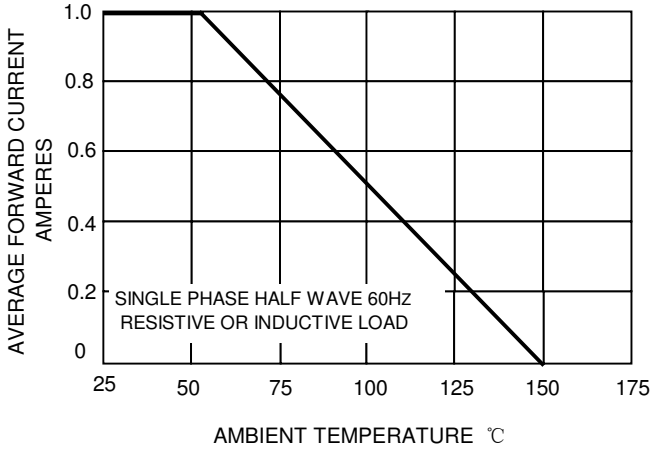


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

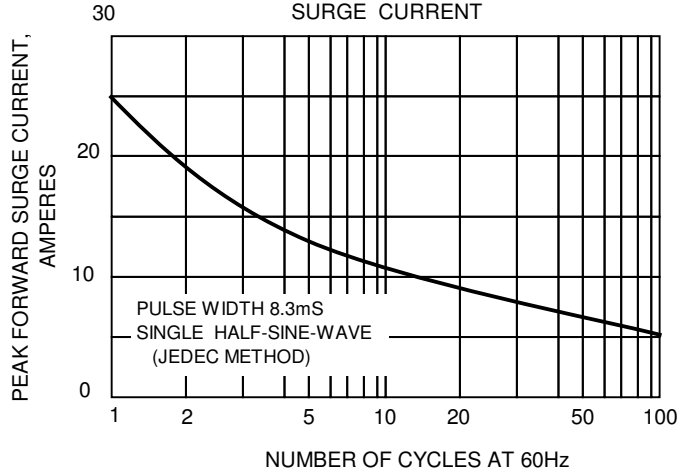


FIG.3-TYPICAL FORWARD CHARACTERISTICS

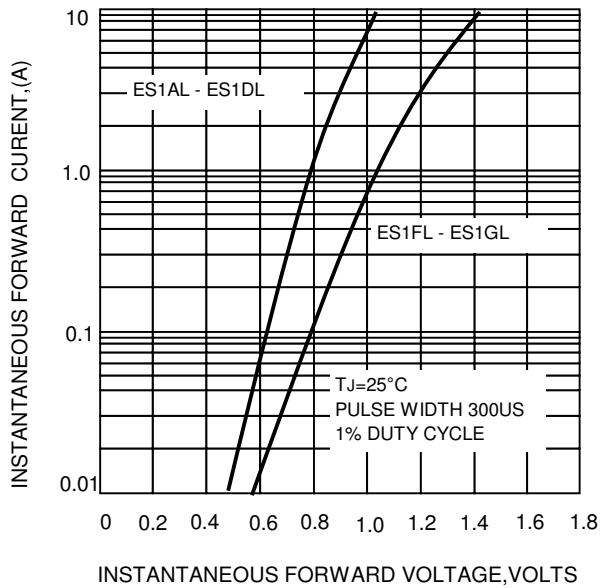


FIG.4-TYPICAL REVERSE CHARACTERISTICS

