

ES1ASL THRU ES1JSL SURFACE MOUNT SUPER FAST RECTIFIER



Features

- Glass passivated device
- Ideal for surface mounted applications
- Low reverse leakage
- Metallurgically bonded construction
- High temperature soldering guaranteed: 260 C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension
- Terminals finish: 100% Pure Tin
- This is a Halogen Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: SOD-123FL, molded plastic
- Terminals: Plated leads, solderable per MIL-STD-750, Method 2026 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position: Any

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Type Number	Symbol	ES1A SL	ES1B SL	ES1D SL	ES1G SL	ES1J SL	Units	
Peak Repetitive Reverse Voltage	V _{RRM}	50	100	200	400	600	V	
Working Peak Reverse Voltage	V _{RWM}							
DC Blocking Voltage	V _R							
Maximum RMS Voltage	V _{R(RMS)}	35	70	140	280	420		
Average Rectified Output Current @T _L =90°C	I _{F(AV)}	1.0						A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30.0						A
Forward Voltage @I _F = 1.0A, T _J =25°C	V _F	0.95			1.25	1.7	V	
Maximum DC reverse current at rated DC blocking voltage	I _R	5.0 100						μA
Typical junction capacitance (Note 1)	C _J	10						pF
Maximum Reverse Recovery Time (Note 2)	T _{rr}	35						ns
Typical thermal resistance (Note 3)	R _{θJA}	85						°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150						°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 VDC
 2. Measured with I_F=0.5A, I_R=1.0A, I_{rr}=0.25A,
 3. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. Mounted

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Ratings and Characteristics Curves

FIG. 1- FORWARD CURRENT DERATING CURVE

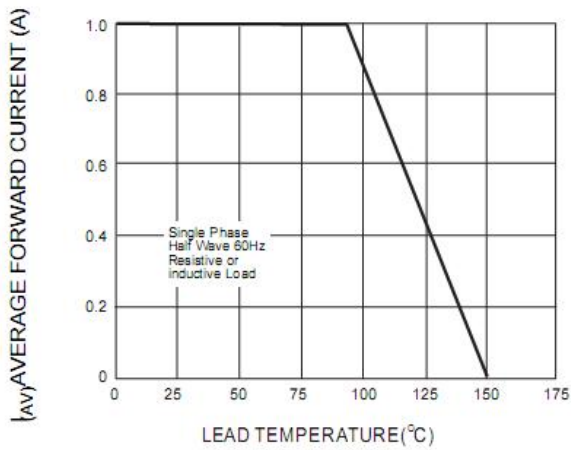


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

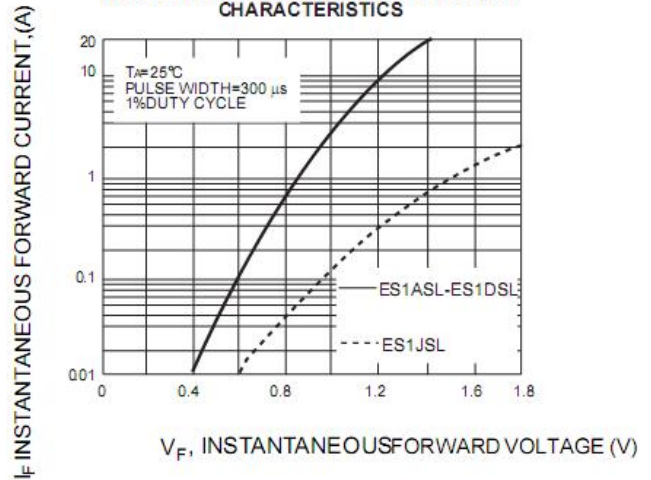


FIG. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

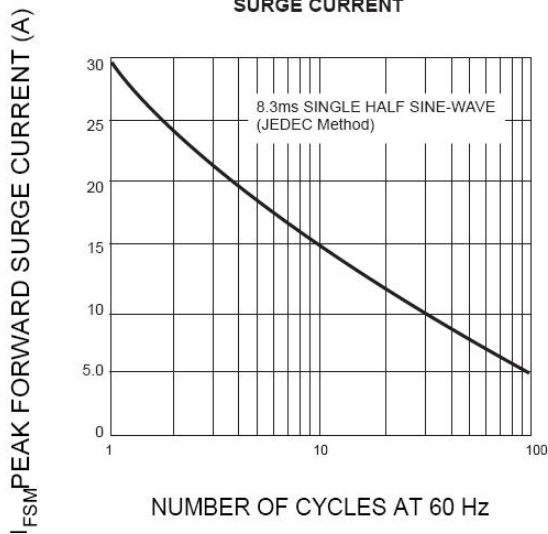


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

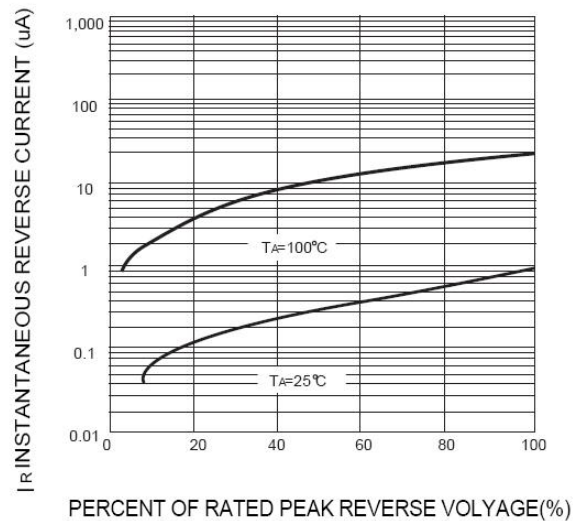
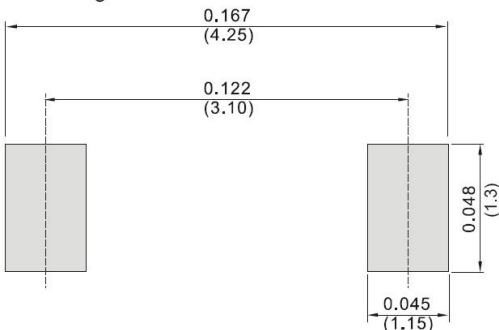
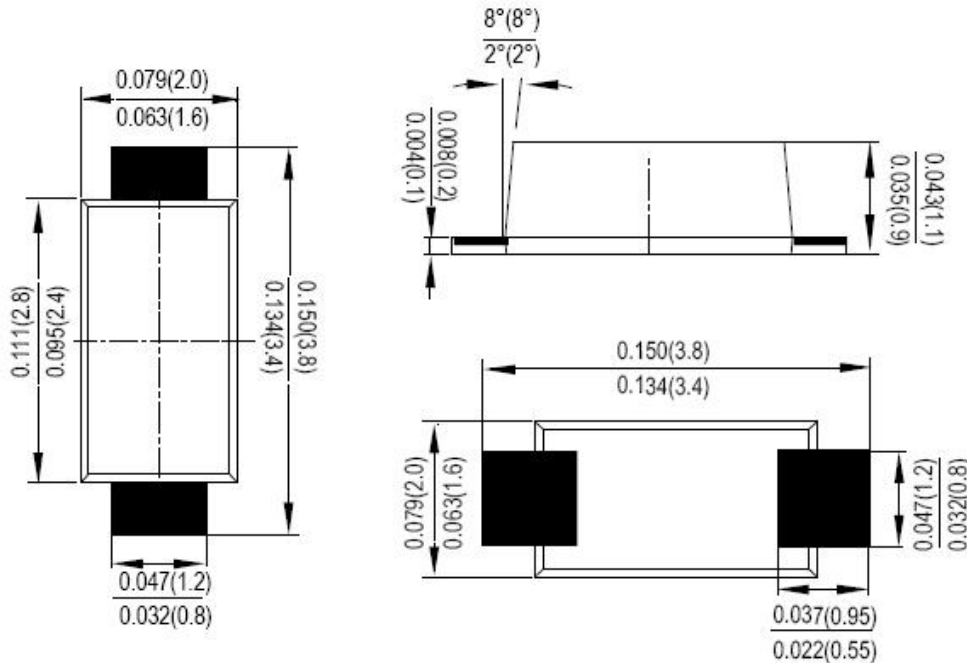


Fig.5 TYPICAL CAPACITANCE



Mechanical Dimensions SOD-123FL(Inches/Millimeters)

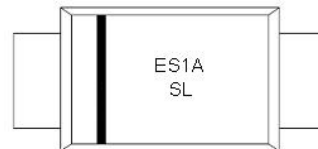


Ordering Information

Device	Package	Shipping
ES1ASL THRU ES1JSL	SOD-123FL (Pb-Free)	3000pcs / reel

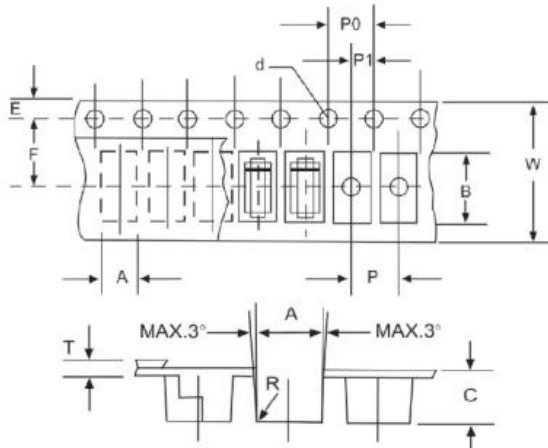
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



ES1ASL = Part Name

Carrier Tape Specification SOD-123FL



SYMBOL	Millimeters	
	Min.	Max.
A	1.95	2.15
B	3.85	4.05
C	1.35	1.55
d	1.50	1.60
E	1.65	1.85
F	3.40	3.60
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
W	7.90	8.30

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