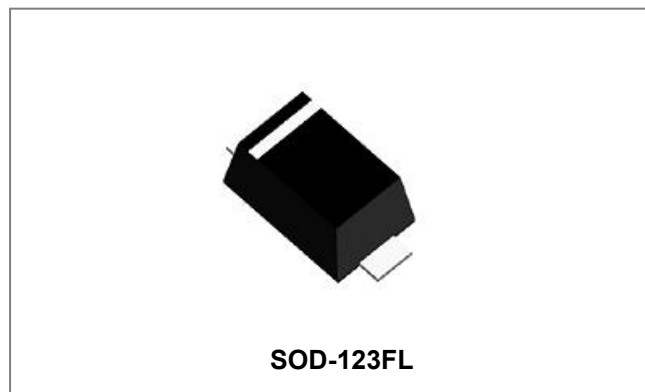


DSR1A THRU DSR1M SURFACE MOUNT HIGH EFFICIENCY RECTIFIER



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
- Plastic material-UL flammability 94V-0
- This is a Pb – 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
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.0007 ounce, 0.02 grams

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

Characteristic	Symbol	DSR1A	DSR1B	DSR1D	DSR1G	DSR1J	DSR1K	DSR1M	Units
Marking Code		S1A	S1B	S1D	S1G	S1J	S1K	S1M	
Peak Repetitive Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V _{RWM}								
DC Blocking Voltage	V _{DC}								
RMS Reverse Voltage	V _{RSM}	35	70	140	280	420	560	700	
Average Rectified Output Current @T _L =90 °C	I _O	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	30							A
Forward Voltage per element @I _F =1.0A	V _F	1.1							V
Peak Reverse Current @T _A =25°C	I _R	5							μA
At Rated DC Blocking Voltage @T _A =125C		100							
Typical junction capacitance (NOTE 1)	C _j	4							pF
Typical Thermal Resistance(NOTE 2)	R _{ΘJA}	180							K/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 4.0V D.C.

2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

Ratings and Characteristics Curves

FIG. 1- FORWARD CURRENT DERATING CURVE

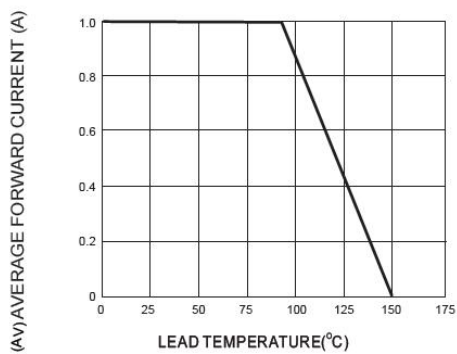


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

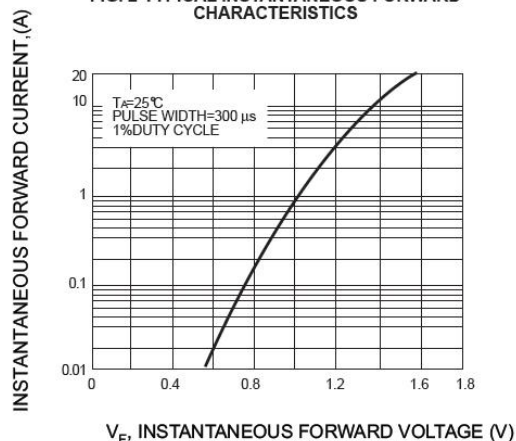


FIG. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

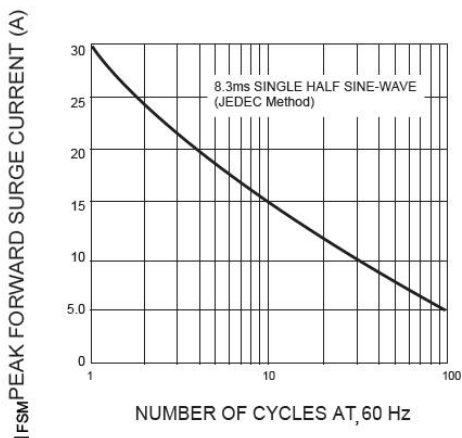


FIG. 4-TYPICAL JUNCTION CAPACITANCE

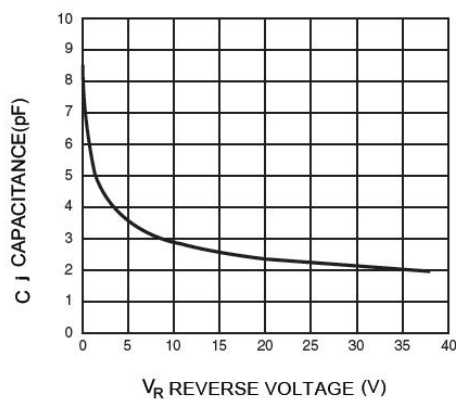


FIG. 5 TYPICAL REVERSE CHARACTERISTICS

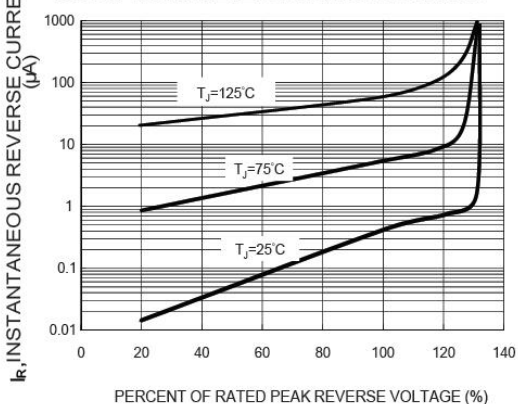
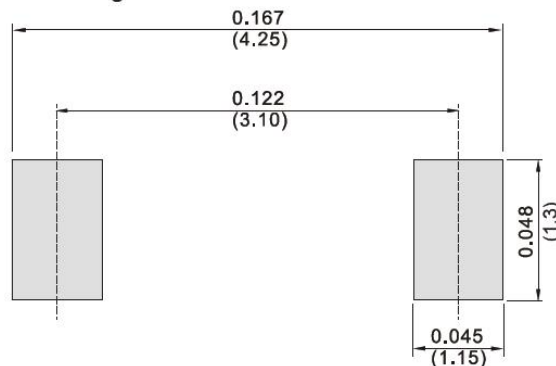
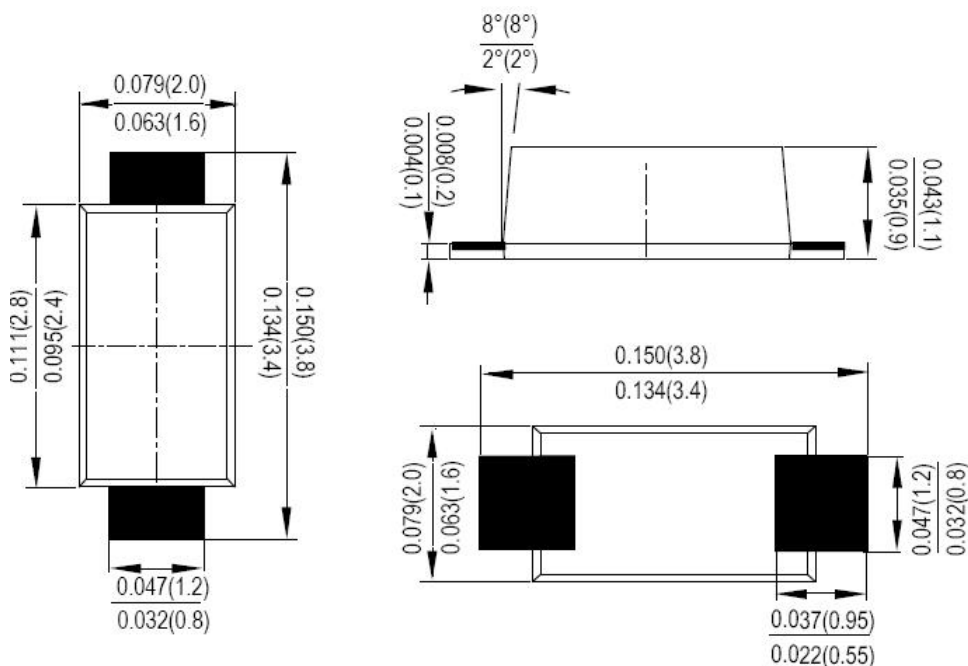


Fig.6 TYPICAL CAPACITANCE



Mechanical Dimensions SOD-123FL(Inches/Millimeters)

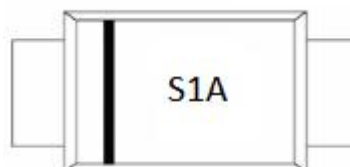


Ordering Information

Device	Package	Shipping
DSR1A THRU DSR1M	SOD-123FL (Pb-Free)	3000pcs / reel

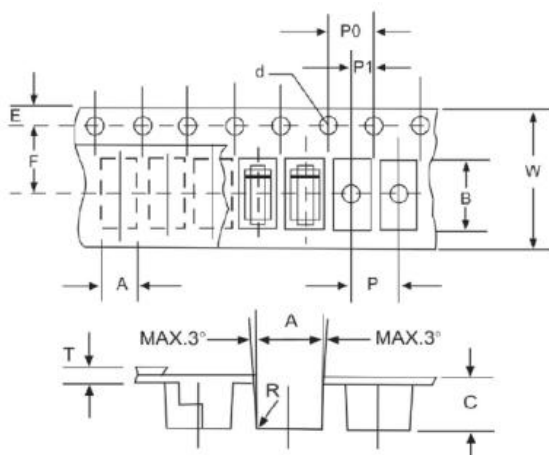
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



S1A = Marking Code

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

Technical Data
Data Sheet N1650, Rev. A



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