

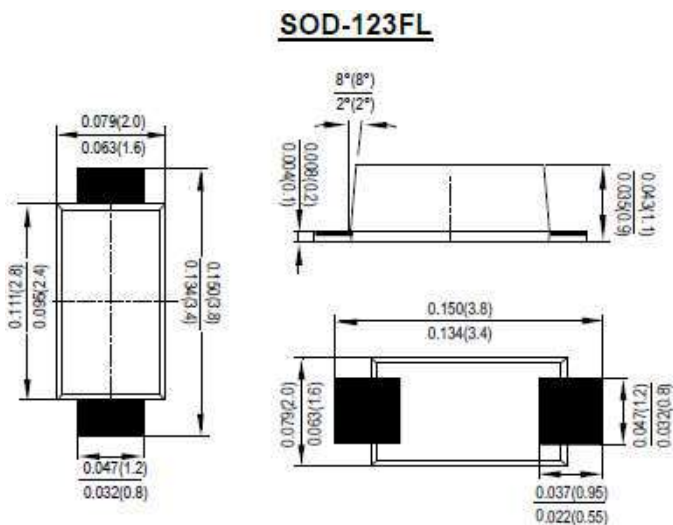
SINGLE PHASE 1.0AMP SURFACE MOUNT SUPER FAST RECOVERY RECTIFIER

Features:

- Glass passivated device
- Ideal for surface mouted 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

Applications:

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



Dimensions in inches and (millimeters)

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%.

TYPE NUMBER	SYMBOL Code	ES1AS	ES1BS	ES1DS	ES1GS	ES1JS	UNITS
		E1A	E1B	E1D	E1G	E1J	
		S1	S2	S4	S6	S8	
Peak Repetitive Reverse Voltage	V _{RRM}	50	100	200	400	600	V
Working Peak Reverse Voltage	V _{RWM}						
DC Blocking Voltage	V _{DC}						
RMS Reverse Voltage	V _{RMS}	35	70	140	280	420	V
Average Rectified Output Current @T _L =90°C	I _{F(AV)}	1.0					A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30					A
I ² t Rating for Fusing (t < 8.3ms)	I ² t	3.735					A ² s
Forward Voltage per element @IF=1.0A	V _{FM}	0.95			1.25	1.7	V
Peak Reverse Current @T _A =25°C At Rated DC Blocking Voltage @T _A =125 °C	I _R	5.0 100					uA
Maximum reverse recovery time (NOTE 1)	t _{rr}	35					ns
Typical junction capacitance (NOTE 2)	C _J	10					pF
Typical thermal resistance (NOTE 3)	R _{θJA}	90					°C/W
Operating and Storage Temperature Range	T _J ,T _{STG}	-55to+150					°C

Note:1. Measured with IF=0.5A, IR=1A, Irr=0.25A.

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

3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

FIG. 1- FORWARD CURRENT DERATING CURVE

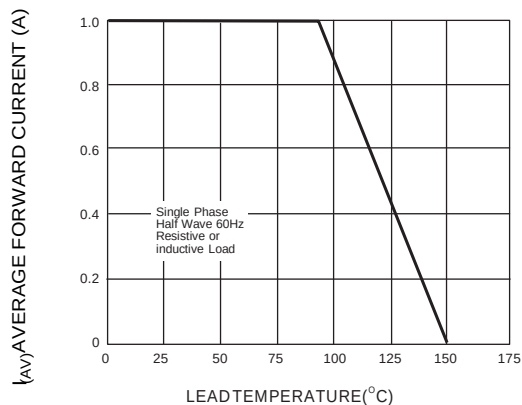


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

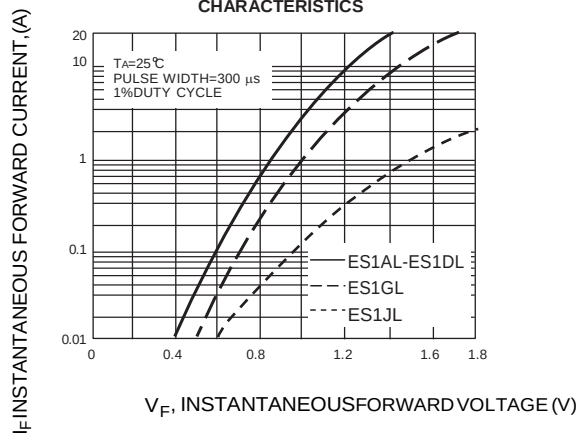


FIG. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

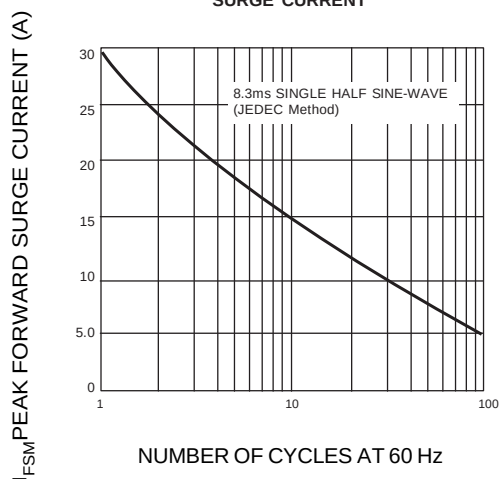


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

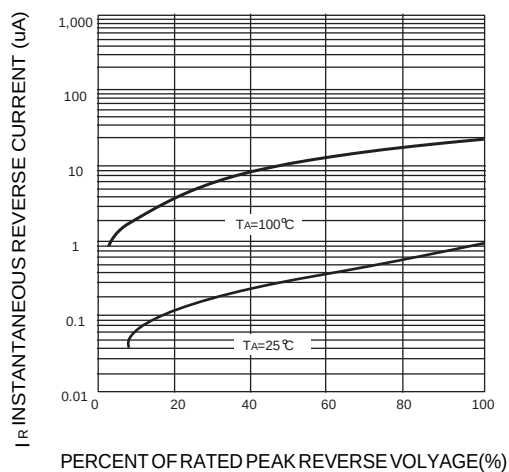
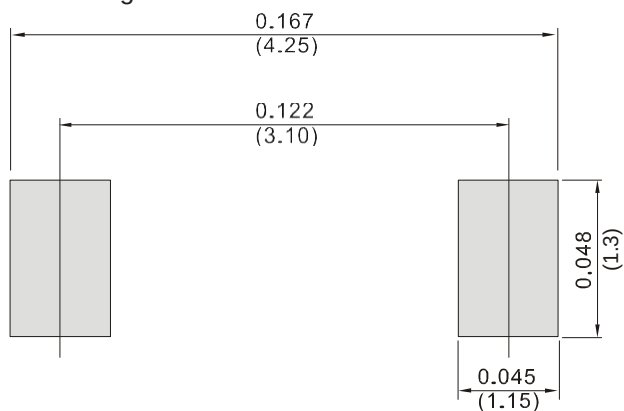
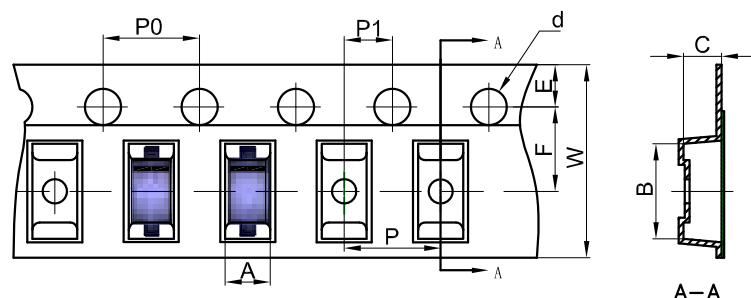


Fig.5 TYPICAL CAPACITANCE



SOD-123 Tape and Reel

SOD-123 Embossed Carrier Tape

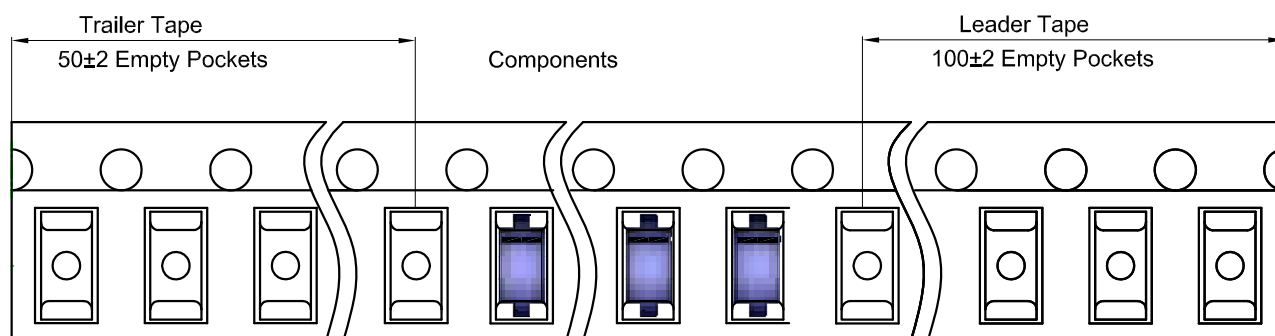


Packaging Description:

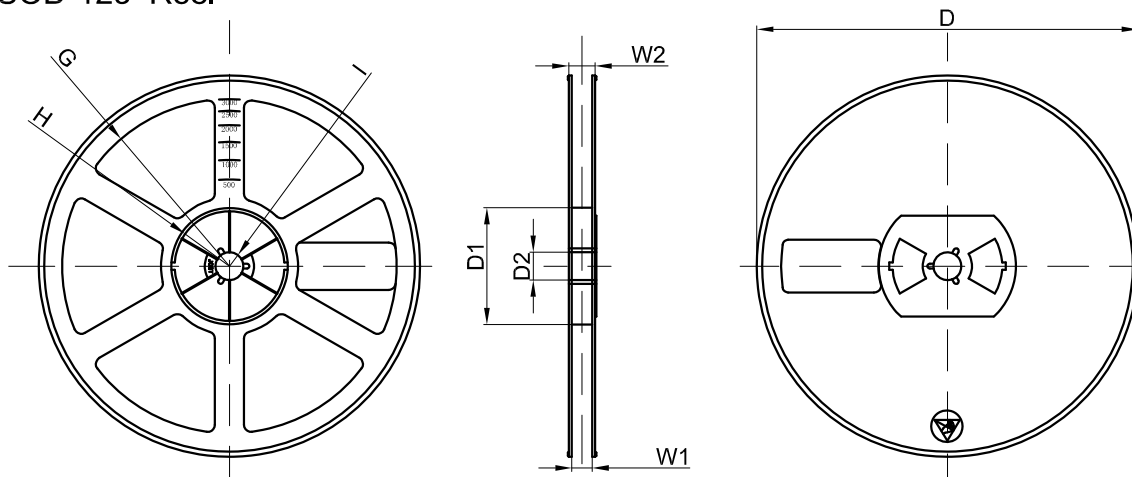
SOD-123 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 17.8cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-123	1.85	3.95	1.57	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00

SOD-123 Tape Leader and Trailer



SOD-123 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	203×203×195	180,000 pcs	438×438×220	