

Features

1. The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
2. For surface mounted applications
3. Metal silicon junction, majority carrier conduction
4. Low power loss, high efficiency
5. Built-in strain relief, ideal for automated placement
6. High forward surge current capability
7. High temperature soldering guaranteed:
250 °C/10 seconds at terminals

Mechanical Data

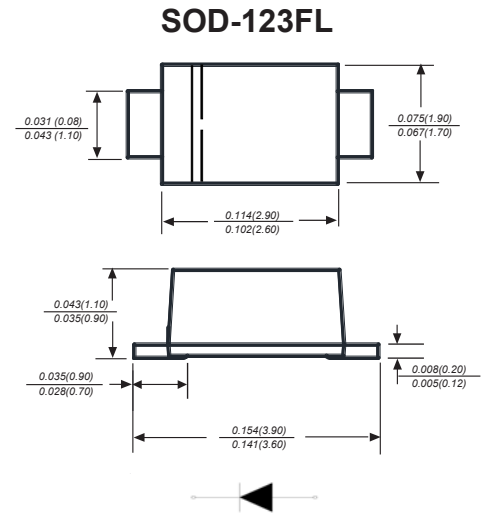
Case : JEDEC SOD-123FL molded plastic body

Terminals : Solderable per MIL-STD-750, Method 2026

Polarity : Color band denotes cathode end

Mounting Position : Any

Weight : 0.0007 ounce, 0.02 grams



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave

60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	DSK32	DSK34	DSK35	DSK36	DSK38	DSK310	DSK315	DSK320	UNITS
Marking Code		K32	K34	K35	K36	K38	K310	K315	K320	
Maximum repetitive peak reverse voltage	V _{RRM}	20	40	50	60	80	100	150	200	V
Maximum RMS voltage	V _{RMS}	14	28	35	42	56	70	105	140	V
Maximum DC blocking voltage	V _{DC}	20	40	50	60	80	100	150	200	V
Maximum average forward rectified current at TL(see fig.1)	I _(AV)	3.0								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	80								A
Maximum instantaneous forward voltage at 3.0A	V _F	0.52	0.70	0.70		0.85				V
Maximum DC reverse current at rated DC blocking voltage T _A =25℃ T _A =125℃	I _R	0.5								mA
		20.0				10.0				
Typical junction capacitance (NOTE 1)	C _J	250		160						pF
Typical thermal resistance (NOTE 2)	R _{θJA}	80.0								℃/W
Operating junction temperature range	T _J	-55 to +125								℃
Storage temperature range	T _{STG}	-55 to +150								℃

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

Typical Characteristics

AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE

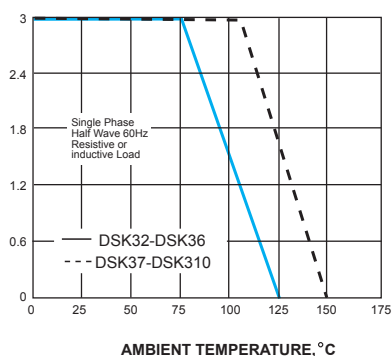


Fig.2 Typical Reverse Characteristics

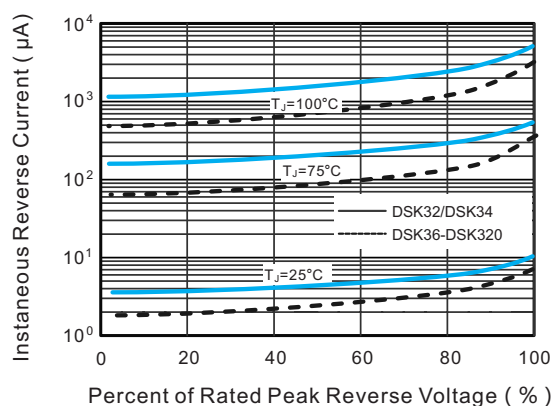


Fig.3 Typical Forward Characteristic

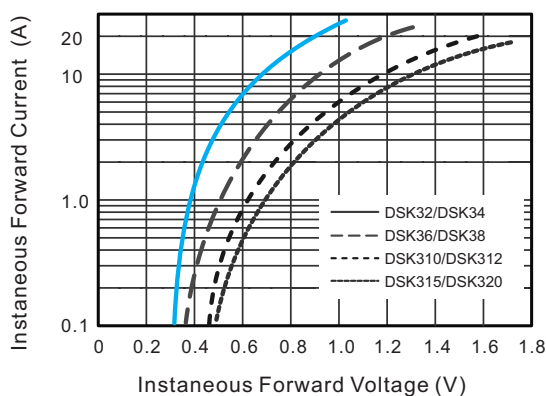
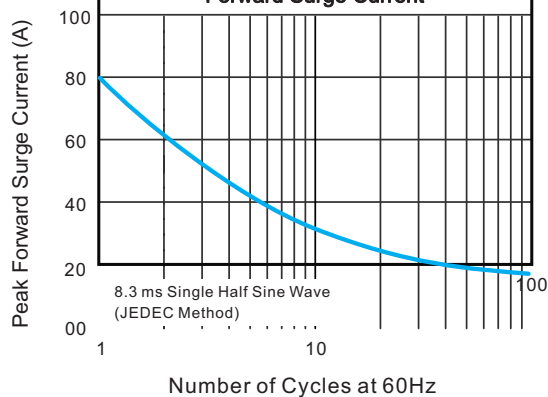
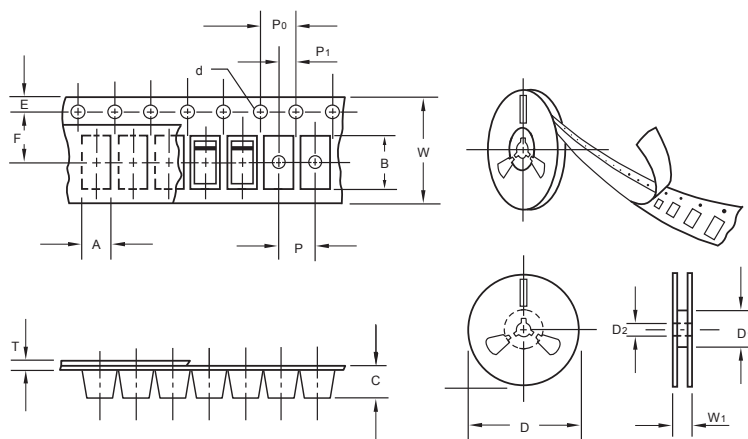


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



Packing information



unit:mm

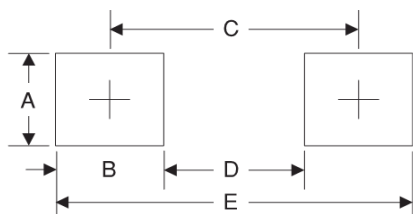
Item	Symbol	Tolerance	SOD-123FL
Carrier width	A	0.1	2.1
Carrier length	B	0.1	4.0
Carrier depth	C	0.1	1.60
Sprocket hole	d	0.05	1.55
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D1	min	50.0
Feed hole diameter	D2	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	3.50
Punch hole pitch	P	0.1	4.00
Sprocket hole pitch	P0	0.1	4.00
Embossment center	P1	0.1	2.00
Overall tape thickness	T	0.1	0.25
Tape width	W	0.3	8.15
Reel width	W1	1.0	10.5

Note: Devices are packed in accordance with EIA standard RS-481-A and specifications listed above.

Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (m/m)	BOX (pcs)	INNER BOX (m/m)	REEL DIA, (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
SOD-123FL	7"	3,000	4.0	45,000	210*208*203	178	430*430*235	180,000	9.0

Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	1.2	0.047
B	1.2	0.047
C	3.2	0.126
D	2	0.079
E	4.4	0.173