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SEMICONDUCTOR



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Product data sheet



SOD-123FL

## FEATURES

- \* Ideal for surface mount applications
- \* Easy pick and place
- \* Built-in strain relief
- \* Low forward voltage drop

## MECHANICAL DATA

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Metallurgically bonded construction
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

	P/N	DS32W-MS	DS33W-MS	DS34W-MS	DS35W-MS	DS36W-MS	DS38W-MS	DS39W-MS	DS310W-MS		
<b>TYPE NUMBER</b>	MARK	K32	K33	K34	K35	K36	K38	K39	K310	UNITS	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	90	100	V	
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	63	70	V	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	90	100	V	
Maximum Average Forward Rectified Current At $T_L=100^\circ\text{C}$	$I_{(AV)}$	3.0								A	
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	80								A	
Maximum Instantaneous Forward Voltage at 3.0A	$V_F$	0.55			0.70		0.85			V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	0.1					0.02				mA
		5					2				mA
Operating Temperature Range $T_J$	$T_J$	-65 — +150									°C
Storage Temperature Range $T_{STG}$	$T_{STG}$	-65 — +150									°C

**NOTES:**

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Lead.

RATING AND CHARACTERISTIC CURVES (K32 THRU K310)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

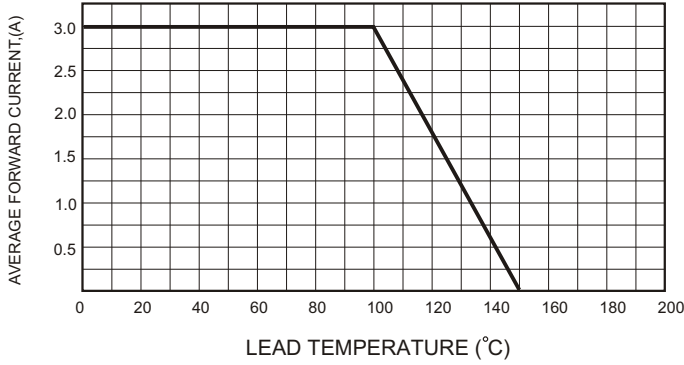


FIG.2-TYPICAL FORWARD CHARACTERISTICS

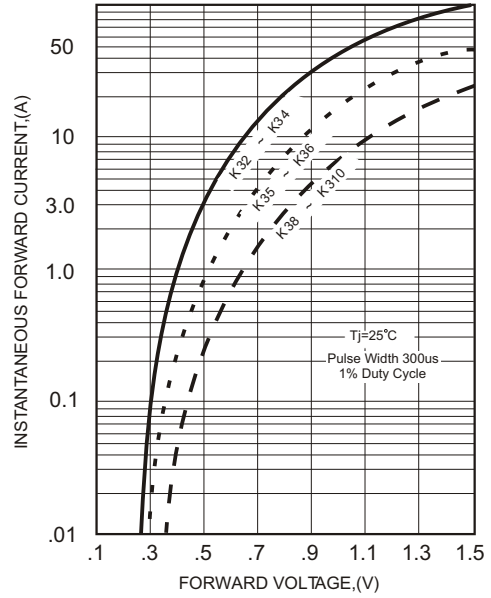


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

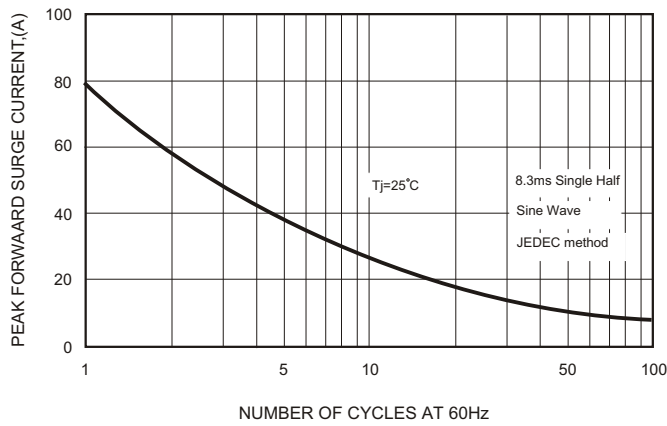


FIG.4-TYPICAL JUNCTION CAPACITANCE

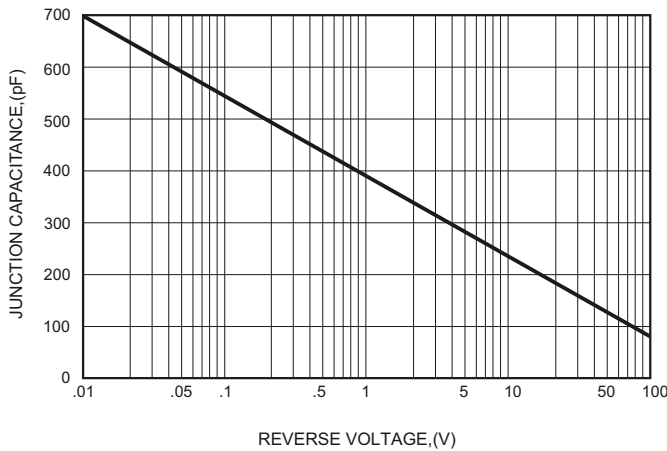
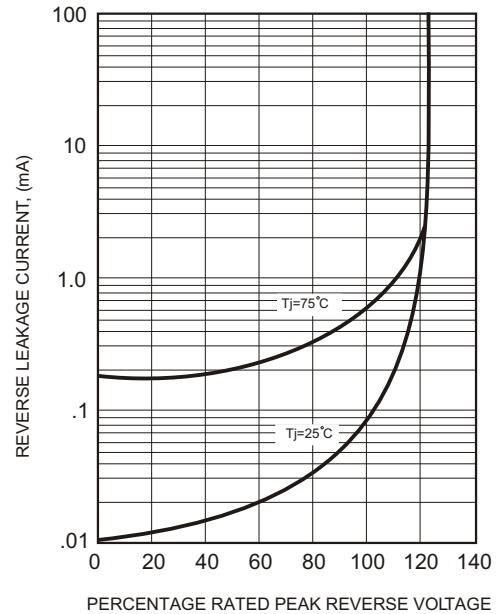
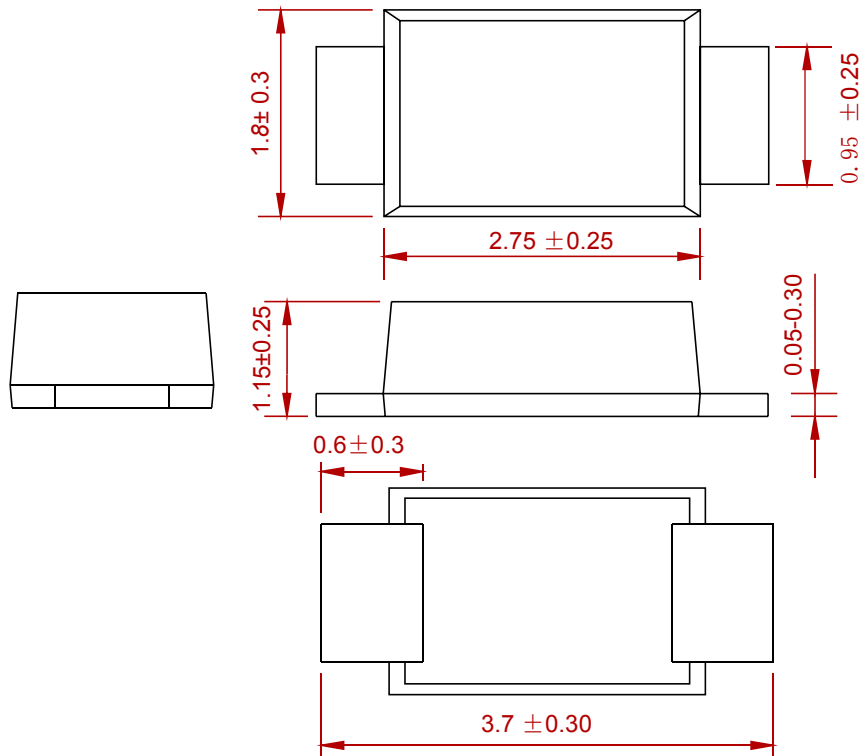


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

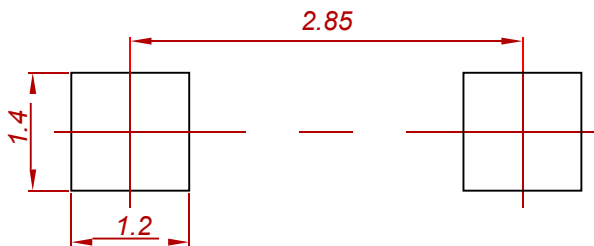


**PACKAGE MECHANICAL DATA**



*Dimensions in millimeters*

**Suggested Pad Layout**



**Note:**

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05$  mm.
3. The pad layout is for reference purposes only.

**REEL SPECIFICATION**

P/N	PKG	QTY
DS32W-MS THRU DS310W-MS	SOD-123FL	3000

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