

# MSKSEMI

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	DS22W-MS	DS23W-MS	DS24W-MS	DS25W-MS	DS26W-MS	DS28W-MS	DS29W-MS	DS210W-MS	
	MARK	K22	K23	K24	K25	K26	K28	K29	K210	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 See Fig. 1	$I_{(AV)}$	2.0								A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	40								A
Maximum Instantaneous Forward Voltage at 2.0A	$V_F$	0.55			0.70		0.85			V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a=25^\circ\text{C}$ $T_a=100^\circ\text{C}$	$I_R$	0.1			0.02			mA		
		5			2			mA		
Typical Junction Capacitance (Note1)	$C_J$	170								pF
Operating Temperature Range $T_J$	$T_J$	-65 — +150								$^\circ\text{C}$
Storage Temperature Range $T_{STG}$	$T_{STG}$	-65 — +150								$^\circ\text{C}$

**NOTES:**

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

RATING AND CHARACTERISTIC CURVES (K22 THRU K210)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

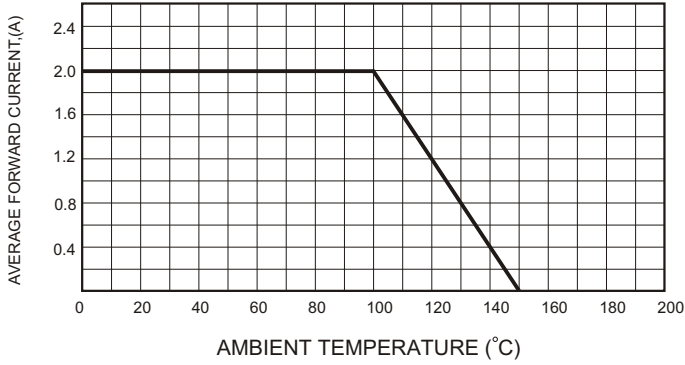


FIG.2-TYPICAL FORWARD CHARACTERISTICS

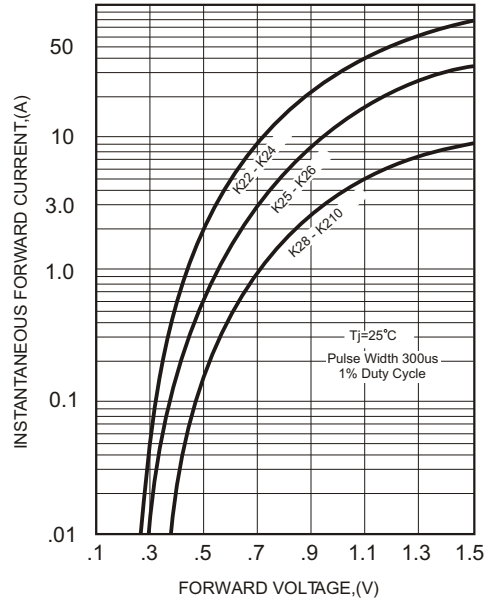


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

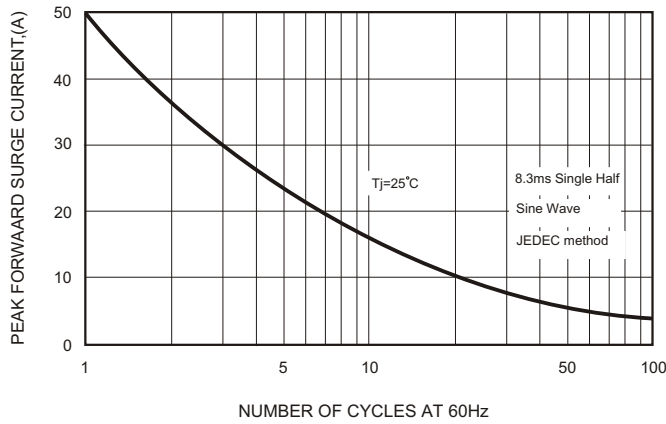


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

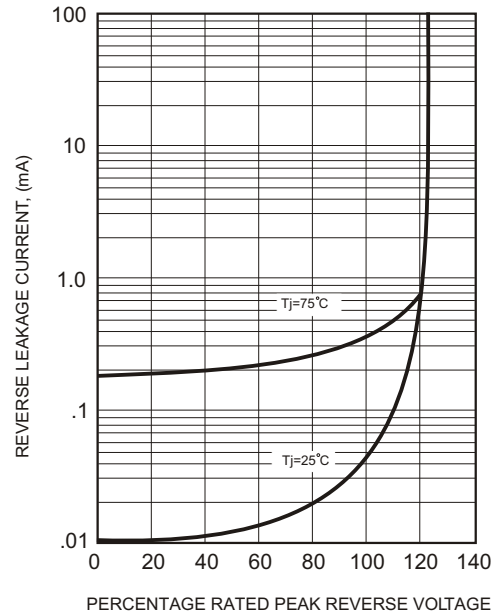
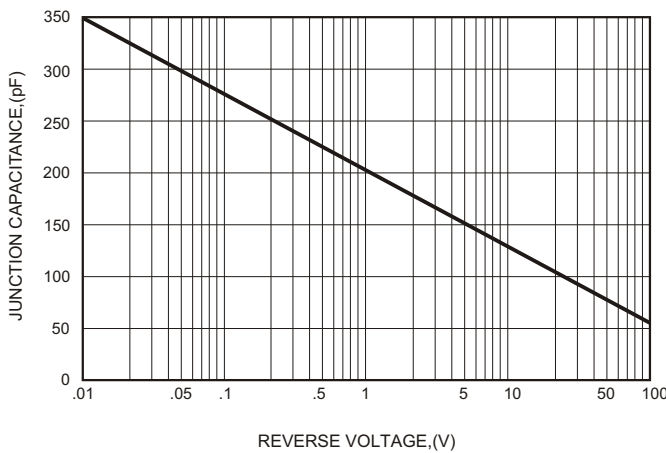
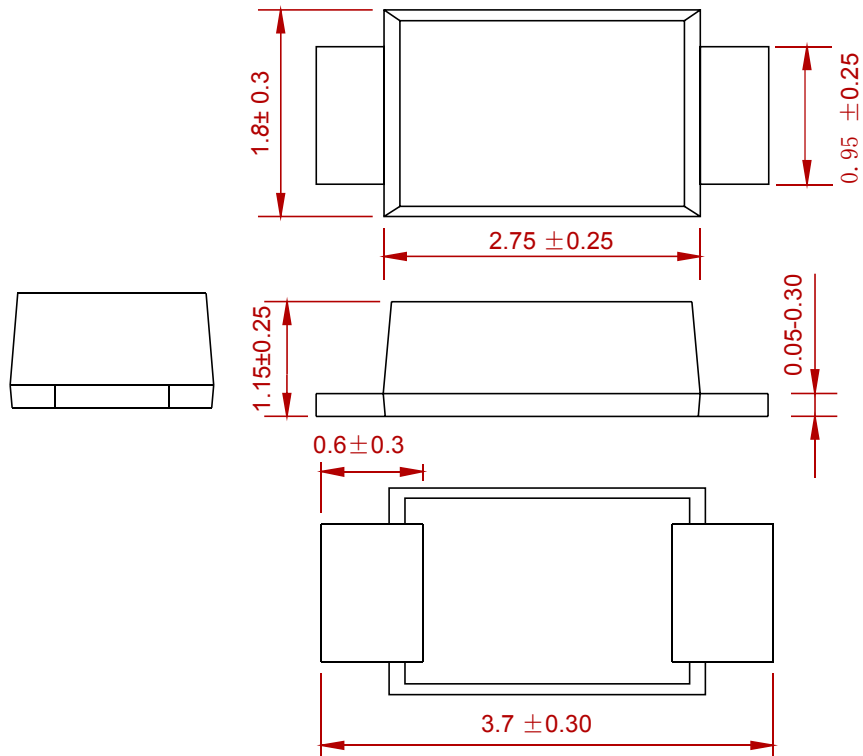


FIG.4-TYPICAL JUNCTION CAPACITANCE

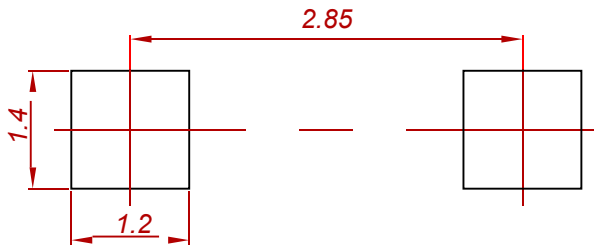


**PACKAGE MECHANICAL DATA**



*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
DS22W-MS THRU DS210W-MS	SOD-123FL	3000

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