

# MSKSEMI

SEMICONDUCTOR



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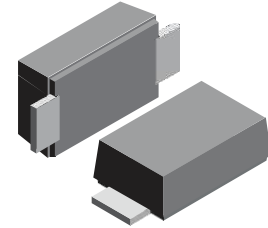
PLED

Product data sheet

[www.msksemi.com](http://www.msksemi.com)

## FEATURES

The plastic package carries Underwriters Laboratory Flammability Classification 94V-0  
 Metal silicon junction, majority carrier conduction  
 Low power loss, high efficiency  
 High forward surge current capability  
 High temperature soldering guaranteed:  
 250°C/10 seconds, 0.375" (9.5mm) lead length,  
 5 lbs. (2.3kg) tension



SOD-123FL

## 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

## 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%.

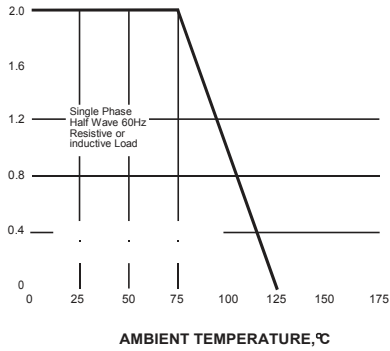
	SYMBOLS	DSK24-MS		UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	40		VOLTS
Maximum RMS voltage	$V_{RMS}$	28		VOLTS
Maximum DC blocking voltage	$V_{DC}$	40		VOLTS
Maximum average forward rectified current	$I_{(AV)}$	2.0		Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	40.0		Amps
Maximum instantaneous forward voltage at 2.0A	$V_F$	0.55		Volts
Maximum DC reverse current at rated DC blocking voltage	$I_R$	$T_A=25^\circ C$	0.5	mA
		$T_A=100^\circ C$	10.0	
Typical junction capacitance (NOTE 1)	$C_J$	220		pF
Operating junction temperature range	$T_J$	-50 to +125	-50 to +150	°C
Storage temperature range	$T_{STG}$	-50 to +150		°C

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

## RATINGS AND CHARACTERISTIC CURVES

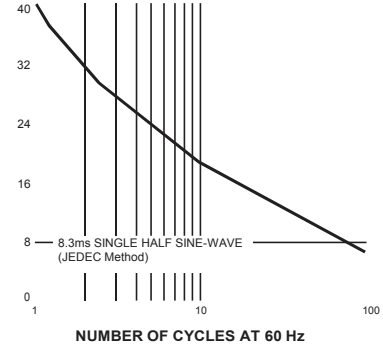
AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



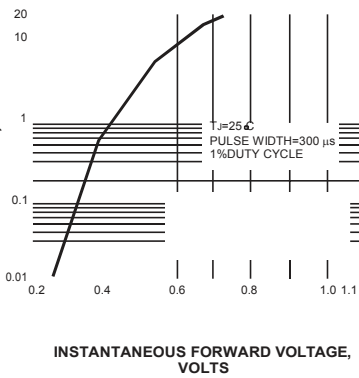
PEAK FORWARD SURGE CURRENT,  
AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



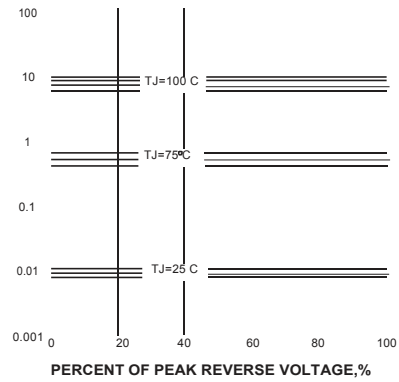
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



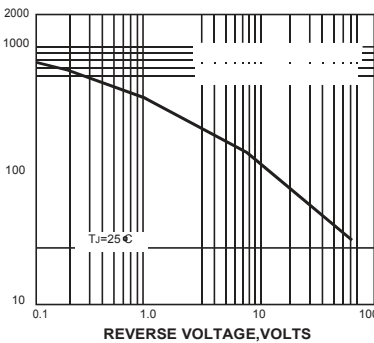
INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

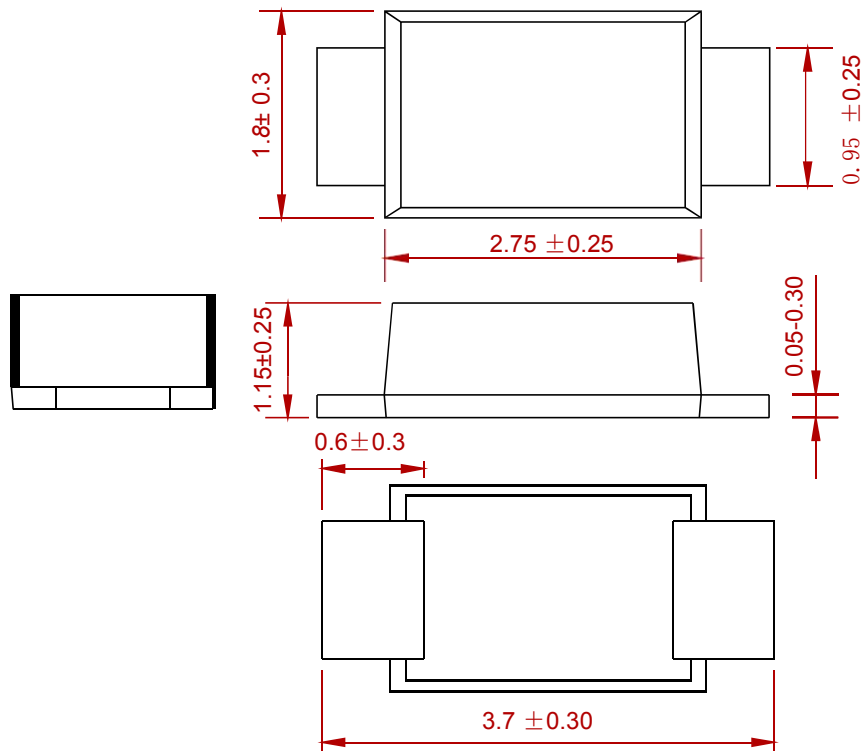


JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE

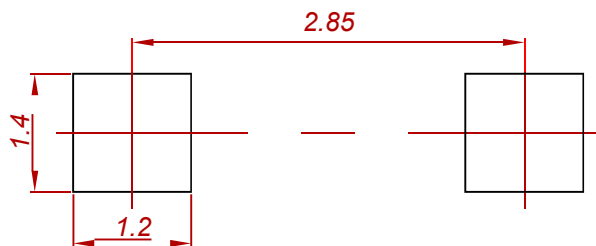


**PACKAGE MECHANICAL DATA**



*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
DSK24-MS	SOD-123FL	3000

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