

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

1N4001W-1N4007W

Product specification


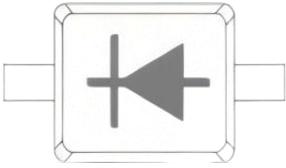
FEATURES

- Ideal for surface mount applications
- Easy pick and place
- Built-in strain relief
- High surge current capability

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Solder plated, solderable per MIL-STD-202F, method 208 guranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any

Reference News

PACKAGE OUTLINE	Circuit	PINNING	
		PIN	DESCRIPTION
 <p>SOD-123FL</p>		1	Cathode
		2	Anode

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 % .

Parameter	SYMBOLS	1N4001W A1	1N4002W A2	1N4003W A3	1N4004W A4	1N4005W A5	1N4006W A6	1N4007W A7	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at $T_A=65$ C (NOTE 1)	$I_{(AV)}$	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) $T_L=25$ C	I_{FSM}	25.0							Amps
Maximum instantaneous forward voltage at 1.0 A	V_F	1.0							Volts
Maximum DC reverse current at rated DC blocking voltage	I_R	$T_A=25^\circ C$							μA
		$T_A=125^\circ C$							
Typical junction capacitance (NOTE 2)	J	4							pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	180							K/W
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +150							$^\circ C$

Note: 1.Averaged over any 20ms period.

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

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

ELECTRICAL CHARACTERISTICS CURVE

FIG.1-TYPICAL FORWARD CHARACTERISTICS

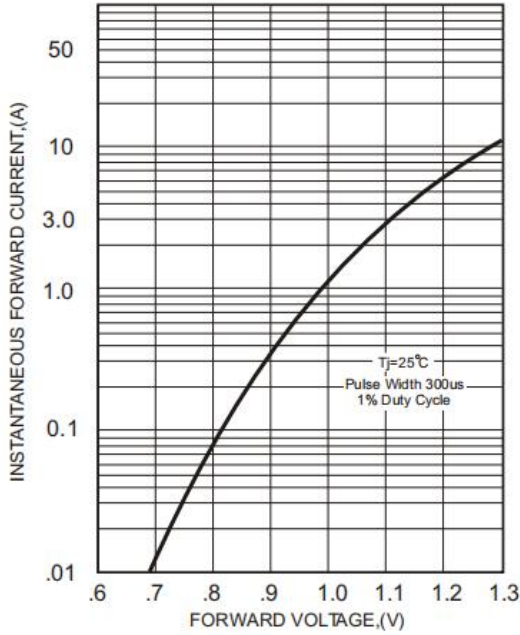


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

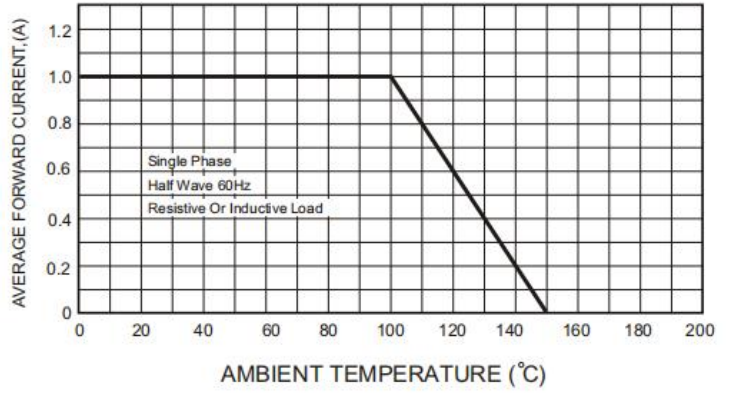


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

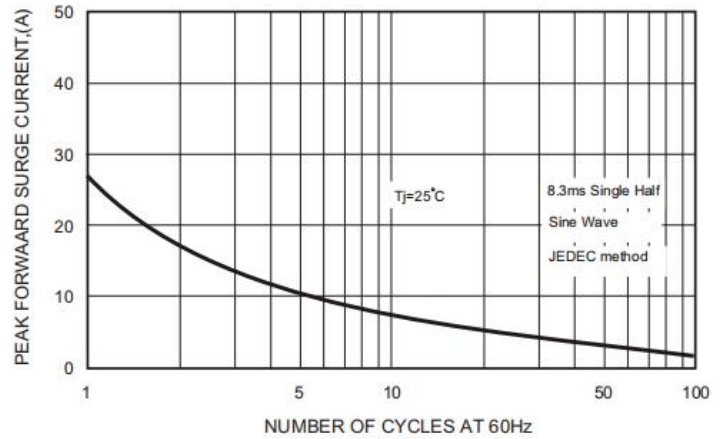


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

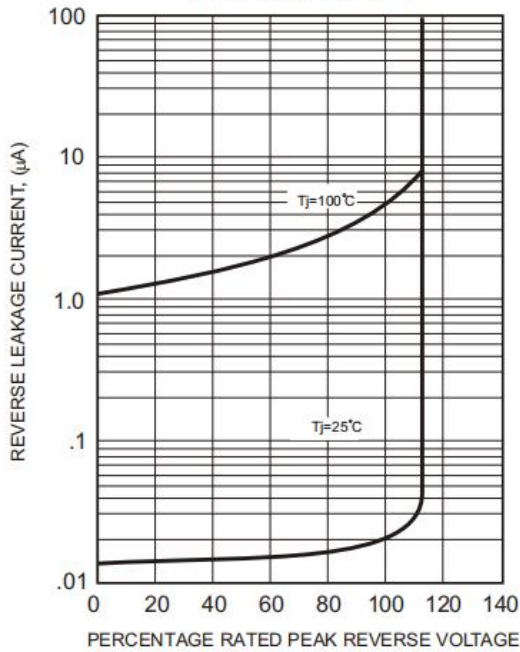
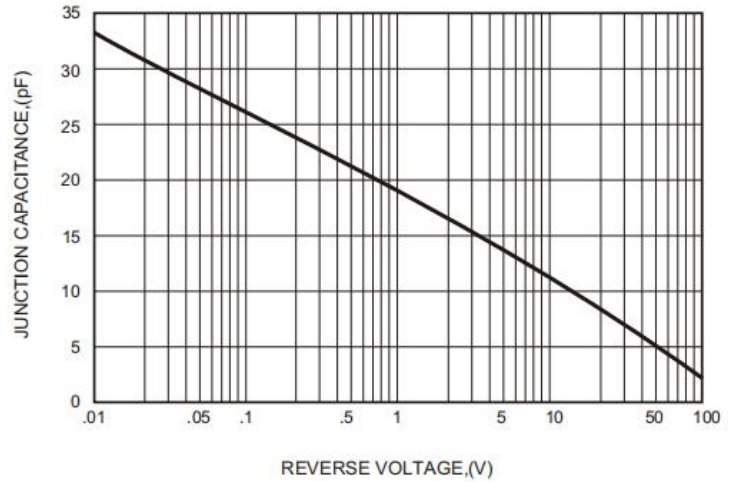
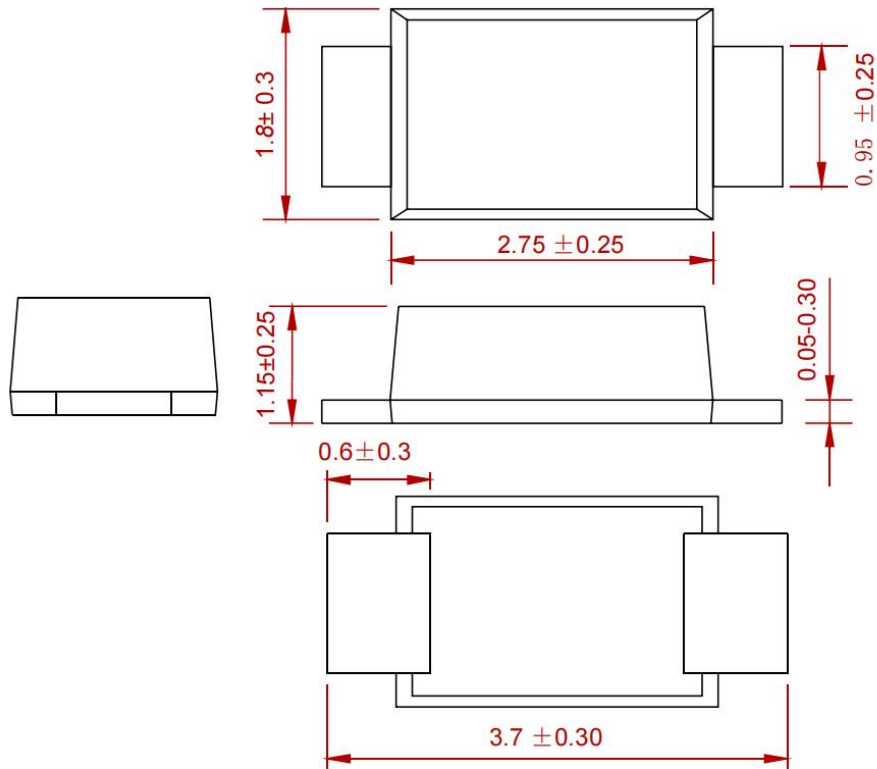


FIG.5-TYPICAL JUNCTION CAPACITANCE

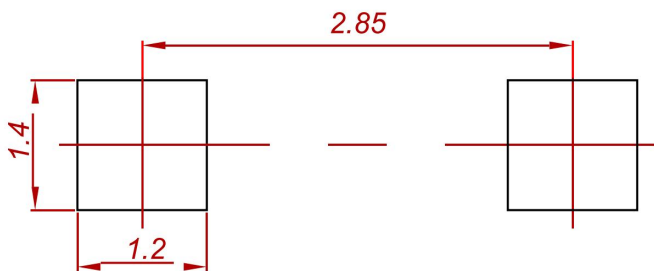


PACKAGE MECHANICAL DATA



Dimensions in millimeters

Suggested Pad Layout



Note:

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

REEL SPECIFICATION

P/N	PKG	QTY
1N4001W-1N4007W	SOD-123FL	3000

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