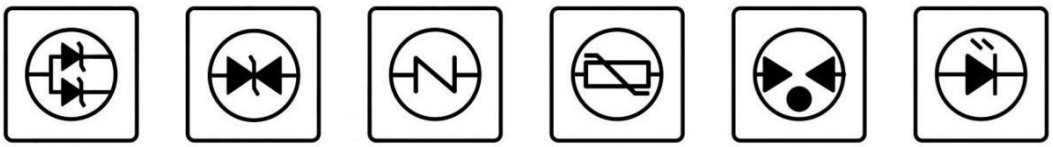
MSKSEMI 美森科
SEMICONDUCTOR



ES1AW THRU ES1JW

Product specification

ES1AW THRU ES1JW

1.0 AMP SURFACE MOUNT SUPER FAST RECTIFIERS
VOLTAGE RANGE 50 to 600 Volts
CURRENT 1.0 Ampere

FEATURES

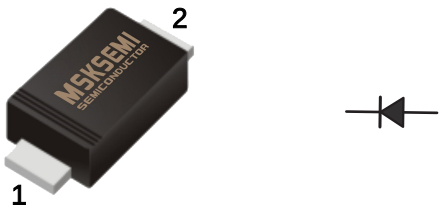
- Ideal for surface mount applications
- Easy pick and place
- Built-in strain relief
- Fast switching speed

MECHANICAL DATA

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

REFERENCE NEWS

SOD-123FL



PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

Marking

ES1AW	ES1BW	ES1CW	ES1DW	ES1EW	ES1GW	ES1JW
E1AW	E1BW	E1CW	E1DW	E1EW	E1GW	E1JW

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

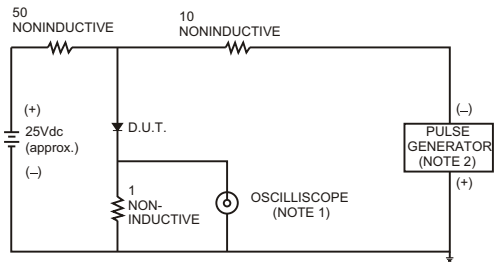
TYPE NUMBER	ES1AW	ES1BW	ES1CW	ES1DW	ES1EW	ES1GW	ES1JW	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	150	200	300	400	600	V
Maximum RMS Voltage	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current at Ta=25℃	1.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	30							A
Maximum Instantaneous Forward Voltage at 1.0A	0.95				1.25		1.7	V
Maximum DC Reverse Current Ta=25℃	5.0							μA
at Rated DC Blocking Voltage Ta=100℃	500							μA
Maximum Reverse Recovery Time (Note 1)	35							nS
Typical Junction Capacitance (Note 2)	15							pF
Typical Thermal Resistance R JA (Note 3)	80							℃/W
Operating and Storage Temperature Range T_J, T_{STG}	-65 ——+150							℃

NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3. Thermal Resistance from Junction to Ambient.

RATING AND CHARACTERISTIC CURVES (E1AW THRU E1JW)

FIG.1- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

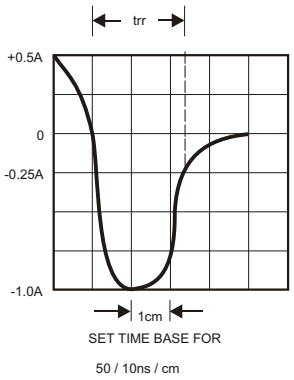


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

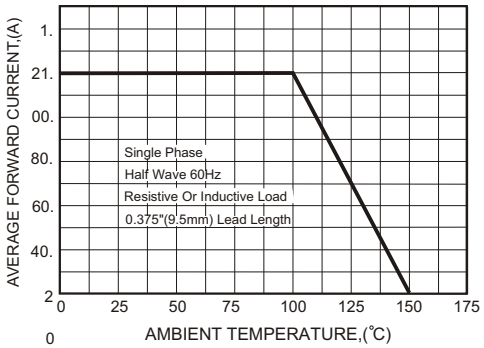


FIG.3-TYPICAL FORWARD CHARACTERISTICS

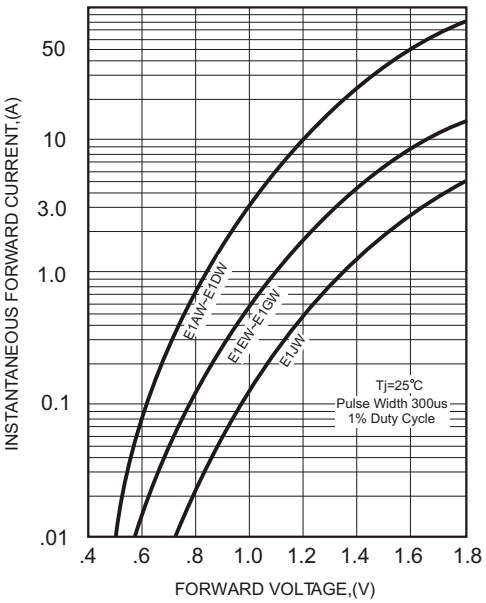


FIG.4-TYPICAL REVERSE CHARACTERISTICS

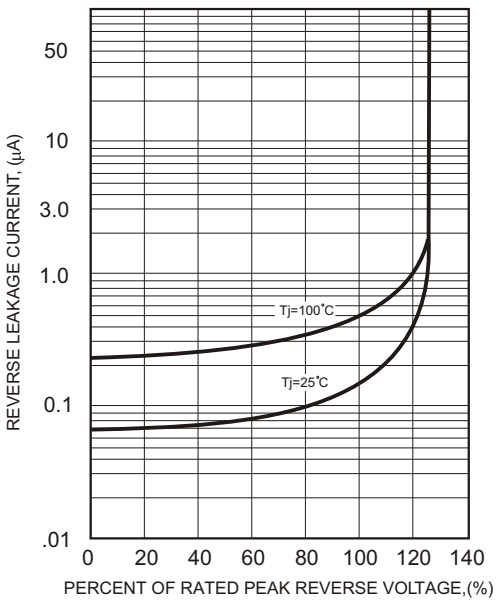


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

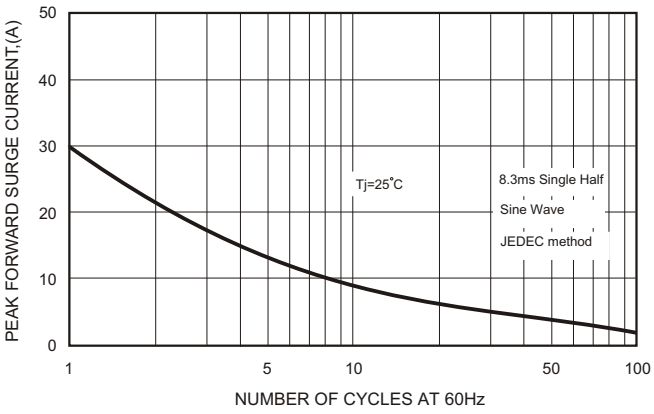
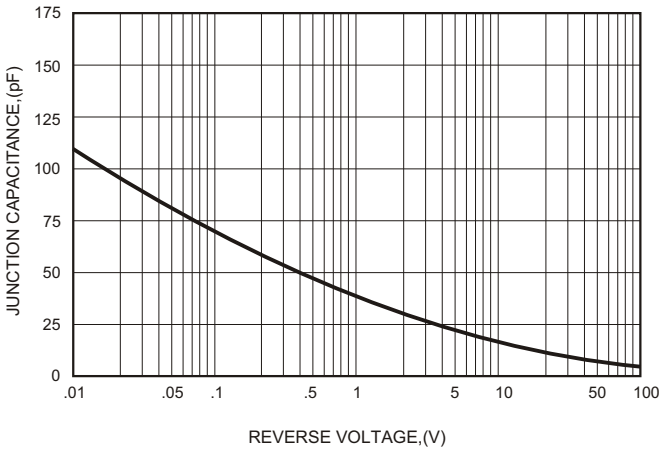
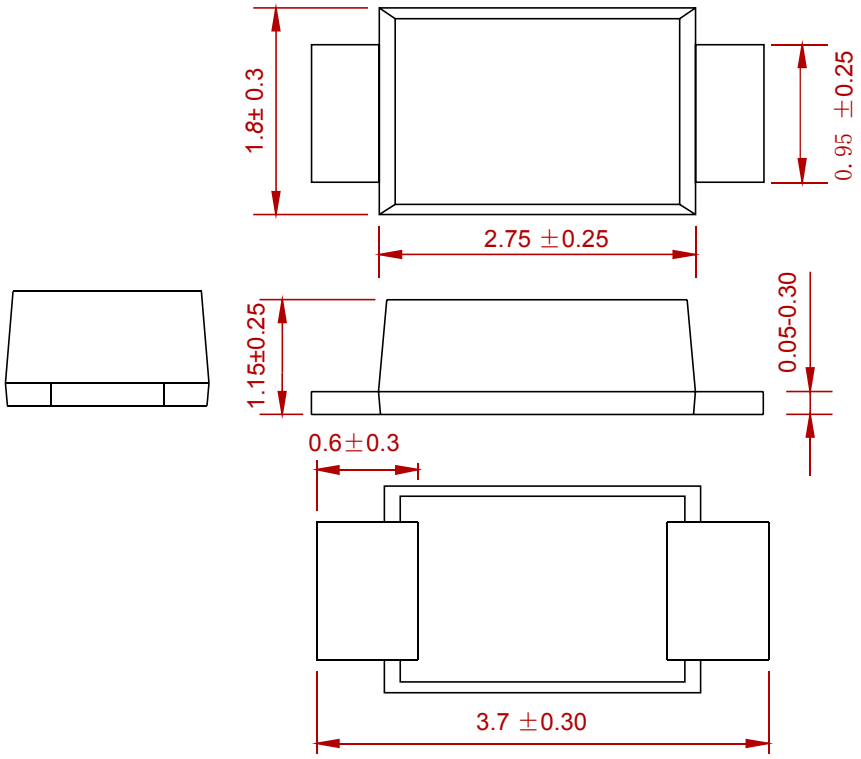


FIG.6-TYPICAL JUNCTION CAPACITANCE

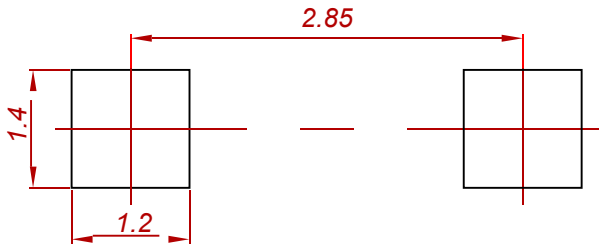


PACKAGE MECHANICAL DATA



Dimensions in millimeters

Suggested Pad Layout



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

REEL SPECIFICATION

P/N	PKG	QTY
ES1AW THRU ES1JW	SOD-123FL	3000

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