

# ES1AW THRU ES1MW

## Surface Mount Superfast Recovery Rectifier

Reverse Voltage – 50 to 1000 V

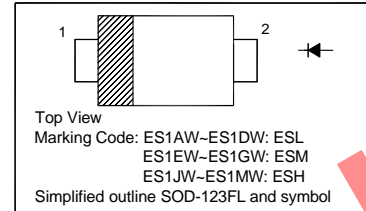
Forward Current – 1 A

### Features

- Easy pick and place
- For surface mounted applications
- Low profile package
- Superfast recovery times for high efficiency

### PINNING

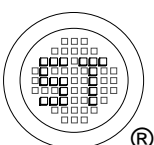
PIN	DESCRIPTION
1	Cathode
2	Anode



### Absolute Maximum Ratings and Characteristics

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

Parameter	Symbols	ES1AW	ES1BW	ES1CW	ES1DW	ES1EW	ES1GW	ES1JW	ES1KW	ES1MW	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current $T_L = 100^\circ\text{C}$	$I_{F(AV)}$	1									A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	30									A
Maximum Forward Voltage at 1 A	$V_F$	0.95			1.3			1.7			V
Maximum Reverse Current at Rated DC Blocking Voltage	at $T_A = 25^\circ\text{C}$	5									$\mu\text{A}$
	at $T_A = 100^\circ\text{C}$	100									
Typical Junction Capacitance at $V_R = 4\text{ V}$ , $f = 1\text{ MHz}$	$C_J$	10									pF
Maximum Reverse Recovery Time at $I_F = 0.5\text{ A}$ , $I_R = 1\text{ A}$ , $I_{rr} = 0.25\text{ A}$	$t_{rr}$	35									ns
Operating Junction and Storage Temperature Range	$T_j, T_{stg}$	- 55 to + 150									$^\circ\text{C}$



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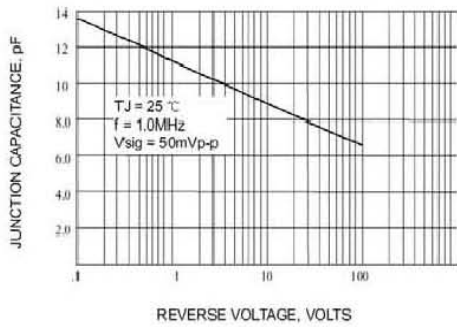


Fig. 1- TYPICAL JUNCTION CAPACITANCE

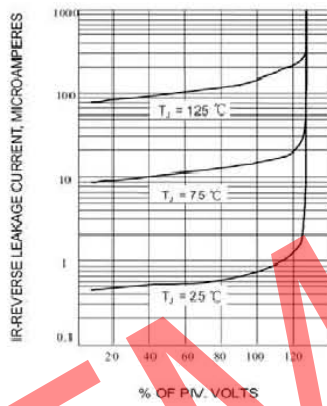
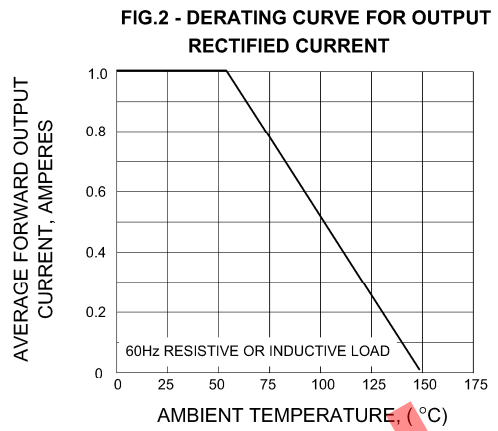


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

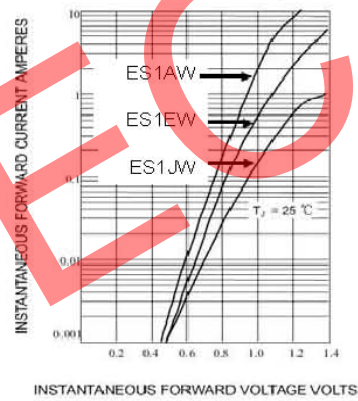
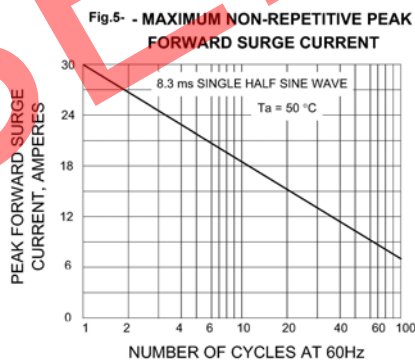


Fig. 4-TYPICAL FORWARD CHARACTERISTICS

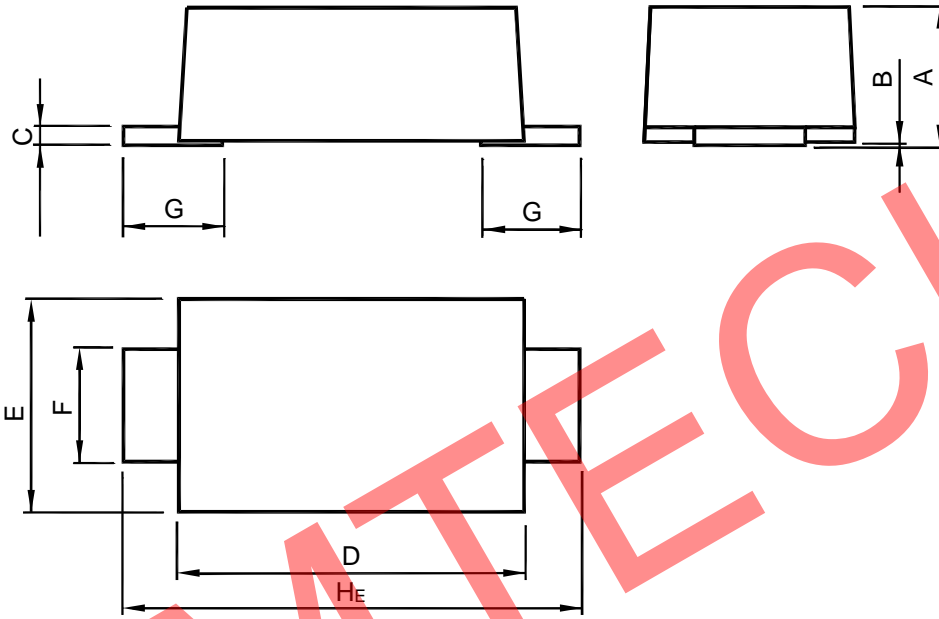


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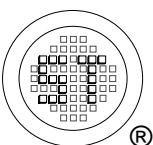
## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123FL



UNIT	A	B	C	D	E	F	G	H <sub>E</sub>
mm	1.08	0.1	0.2	2.9	1.9	1.1	0.9	3.9
	0.88	0	0.1	2.6	1.7	0.8	0.7	3.5



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Dated: 09/07/2013 Rev: 01