



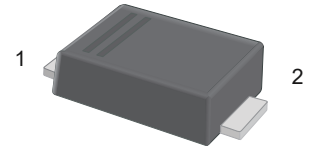
ES1AFL~ES1JFL

Surface Mount Superfast Recovery Rectifiers

Features

- For surface mount applications
- Glass passivated chip junction
- Low power loss, high efficiency
- Superfast reverse recovery time

SOD-123FL



1.Cathode  2.Anode

Marking Code:

ES1AFL: ESL
 ES1BFL: ESL
 ES1CFL: ESL
 ES1DFL: ESL
 ES1DFL: ESM
 ES1GFL: ESM
 ES1JFL: ESH

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	ES1AFL	ES1BFL	ES1CFL	ES1DFL	ES1EFL	ES1GFL	ES1JFL	Units	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	V	
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	420	V	
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	V	
Maximum Average Forward Rectified Current at $T_C=125^\circ\text{C}$	$I_{F(AV)}$	1.0							A	
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	30							A	
Maximum Instantaneous Forward Voltage at 1 A	V_F	1.0				1.25		1.68	V	
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$	I_R	5				100				μA
Typical Junction Capacitance ^{Note1}	C_j	15								pF
Typical Thermal Resistance ^{Note2}	$R_{\theta JA}$	85								$^\circ\text{C/W}$
Maximum Reverse Recovery Time ^{Note3}	T_{rr}	35								nS
Junction Temperature	T_J	150								$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150								$^\circ\text{C}$

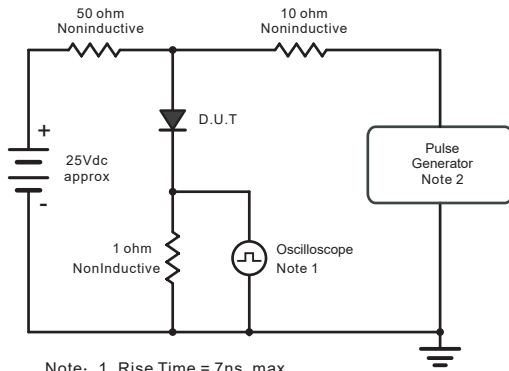
Note:

1. Measured at 1 MHz and applied reverse voltage of 4 V D.C
2. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.
3. Measured with $I_F = 0.5 \text{ A}$, $I_R = 1 \text{ A}$, $I_{rr} = 0.25 \text{ A}$

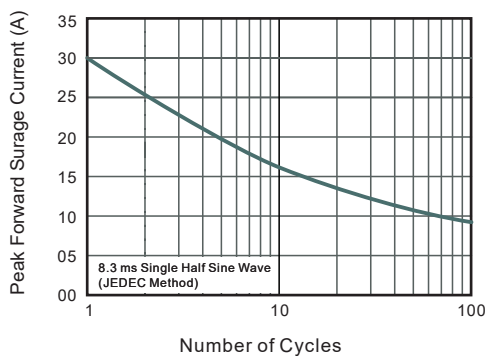
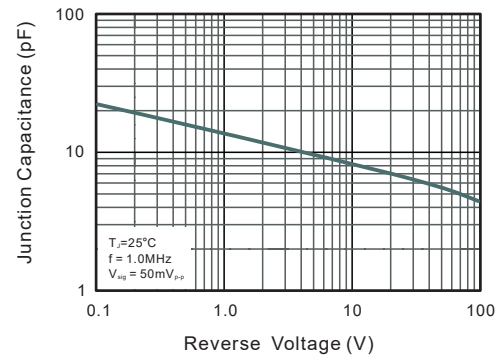
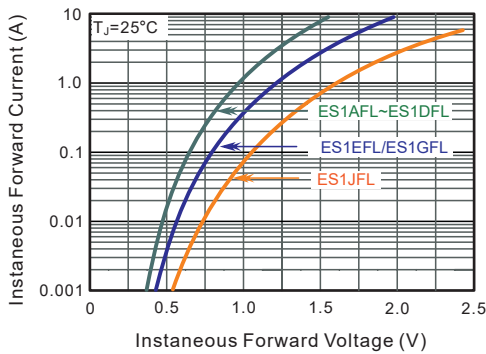
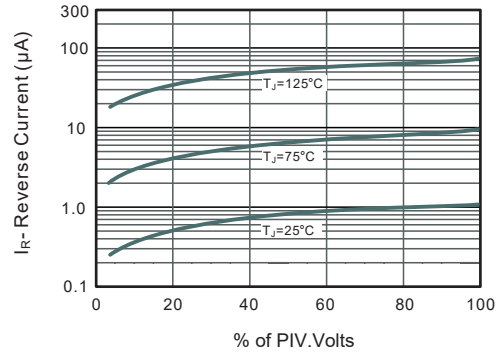
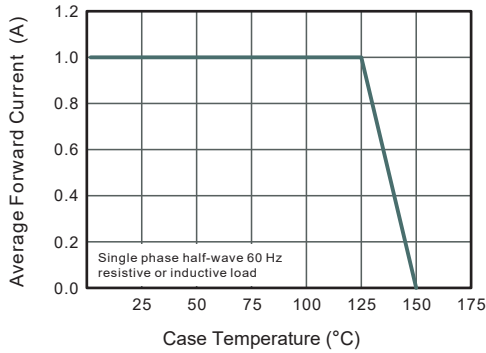
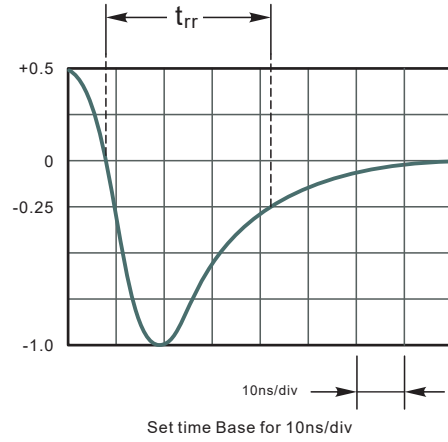


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Typical Characteristic Curves



Note: 1. Rise Time = 7ns, max.
Input Impedance = 1megohm, 22pF.
2. Rise Time = 10ns, max.
Source Impedance = 50 ohms.





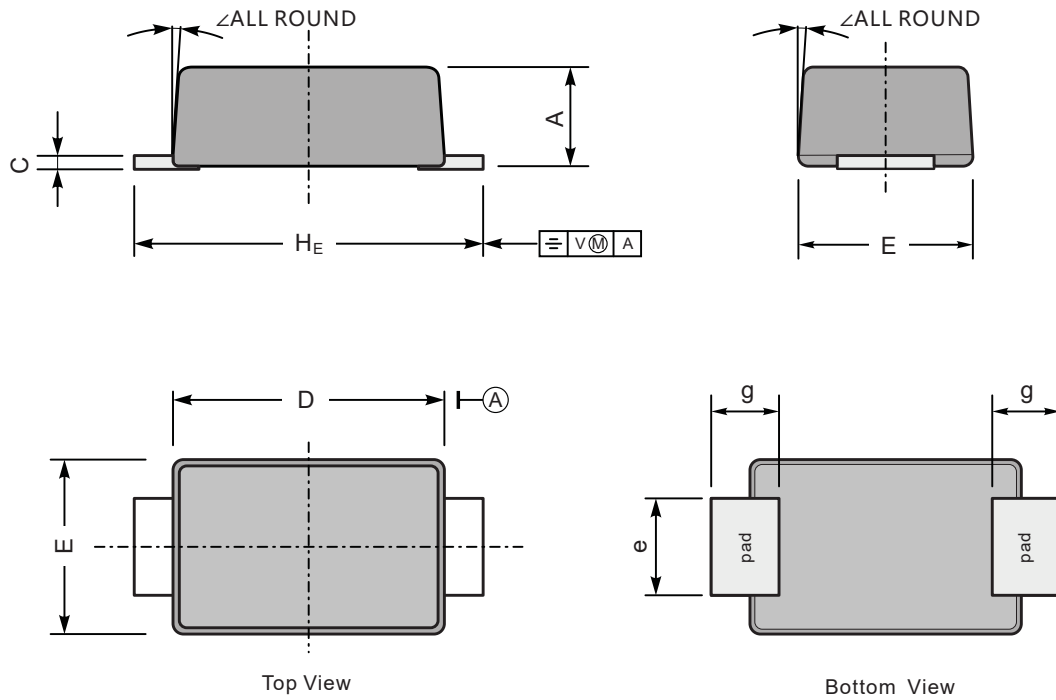
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Package Outline

SOD-123FL

Dimensions in mm



UNIT		A	C	D	E	e	g	H_E	\angle
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	