

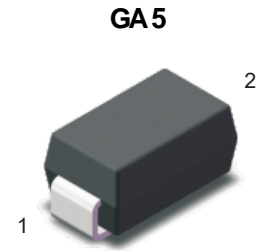


ES1A-PJ~ES1J-PJ

Surface Mount Superfast Recovery Rectifiers

Features

- For surface mount applications
- Glass passivated chip junction
- Superfast reverse recovery time



1.Cathode  2.Anode

Marking Code:

ES1A-PJ: ES1A
 ES1B-PJ: ES1B
 ES1C-PJ: ES1C
 ES1D-PJ: ES1D
 ES1E-PJ: ES1E
 ES1G-PJ: ES1G
 ES1J-PJ: ES1J

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	ES1A-PJ	ES1B-PJ	ES1C-PJ	ES1D-PJ	ES1E-PJ	ES1G-PJ	ES1J-PJ	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	$I_{F(AV)}$	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		1.70	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}	$R_{\theta JA}$					75			$^\circ\text{C/W}$
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			$^\circ\text{C}$

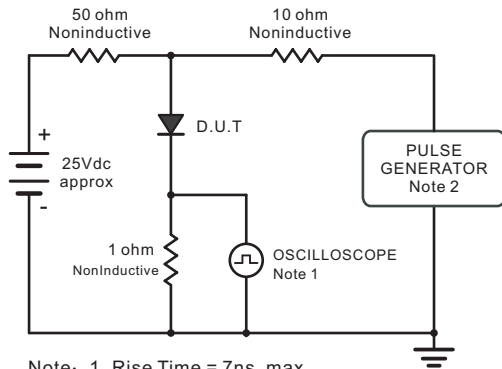
Note:

1. Measured at 1 MHz and applied reverse voltage of 4 V D.C
2. P.C.B. mounted with 1.0" X 1.0" (2.54 X 2.54 cm) copper pad areas.
3. Measured with $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{rr} = 0.25\text{ A}$

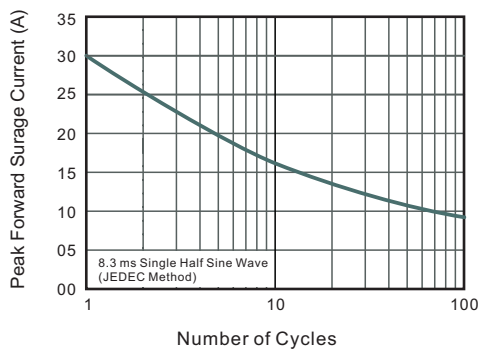
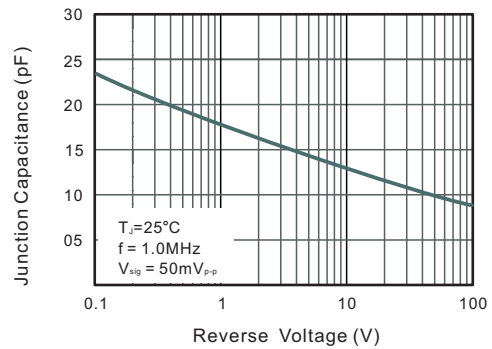
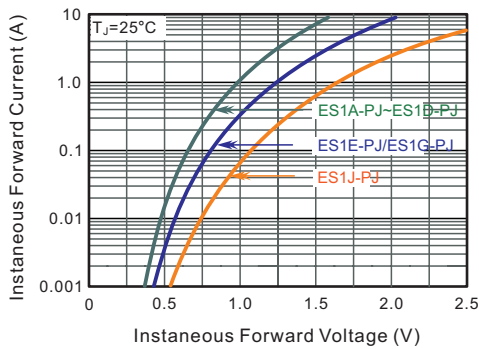
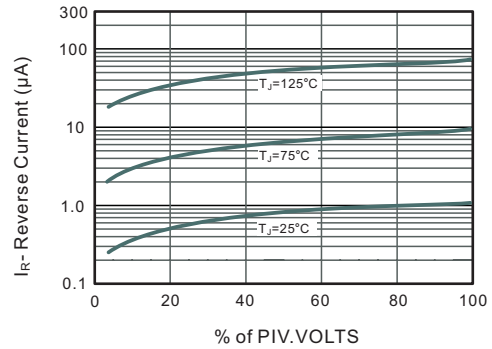
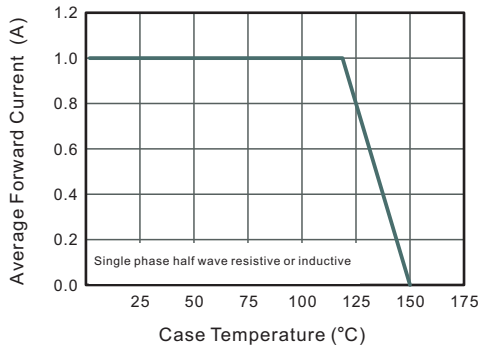
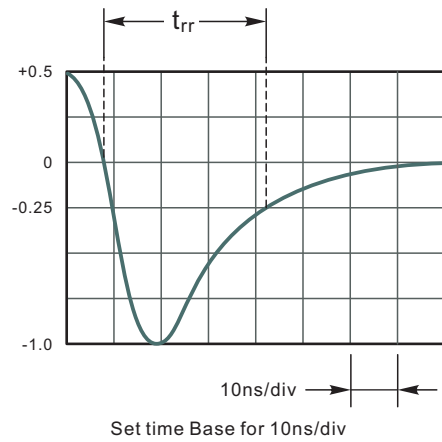


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Typical Characteristic Curves



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





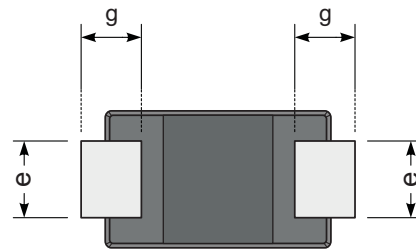
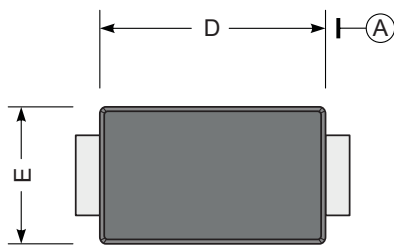
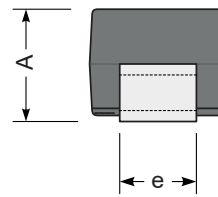
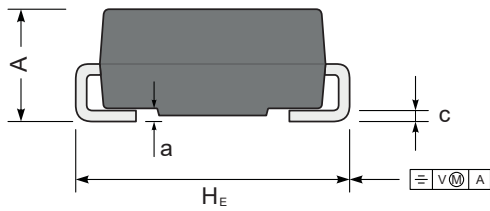
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Package Outline

SMA

Dimensions in mm



UNIT		A	D	E	H _E	c	e	g	a
mm	max	2.2	4.5	2.7	5.2	0.31	1.6	1.5	0.3
	min	1.9	4.0	2.3	4.7	0.15	1.3	0.9	
mil	max	87	181	106	205	12	63	59	12
	min	75	157	91	185	6	51	35	