ES5AC THRU ES5JC

Features

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Superfast reverse recovery time
- Lead free in comply with EU RoHS 2011/65/EU directives

Simplified outline SMC and symbol

Mechanical Data

- Case:SMC
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx.Weight: 0.22g / 0.0077oz

Pinning

PIN	DESCRIPTION
1	Cathode
2	Anode

Absolute Maximum Ratings And Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.

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

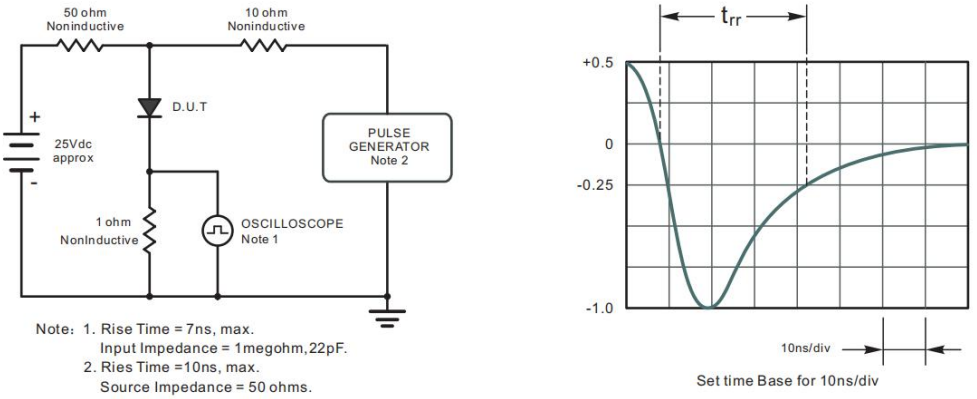
Parameter	Symbols	ES5AC	ES5BC	ES5CC	ES5DC	ES5EC	ES5GC	ES5JC	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	120							A
Maximum Forward Voltage at 1 A	V_F	1.0				1.25		1.68	V
Maximum DC Reverse Current Ta = 25° C at Rated DC Blocking Voltage Ta =125° C	I_R	5 100							μA
Typical Junction Capacitance at VR=4V, f=1MHz	Cj	50							pF
Maximum Reverse Recovery Time (1)	t_{rr}	35							ns
Typical Thermal Resistance(2)	$R_{\theta JA}$ $R_{\theta JC}$	35 13							℃/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150							℃

（1）Measured with IF = 0.5 A, IR = 1 A, Irr = 0.25 A

（2）P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas

Rating And Characteristic Curves

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



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

Fig.2 Maximum Average Forward Current Rating

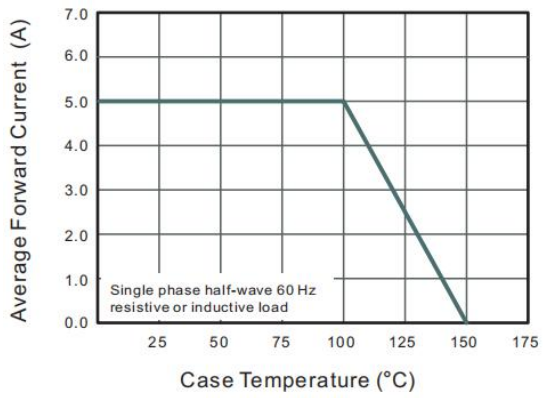


Fig.3 Typical Reverse Characteristics

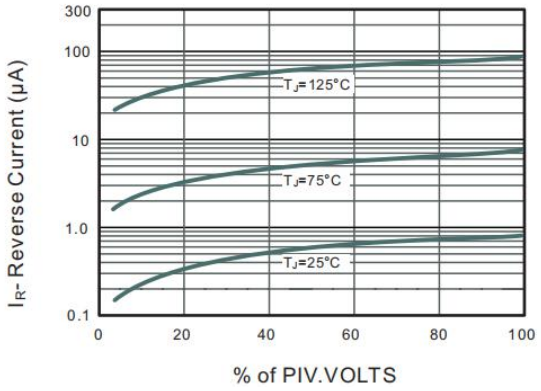


Fig.4 Typical Forward Characteristics

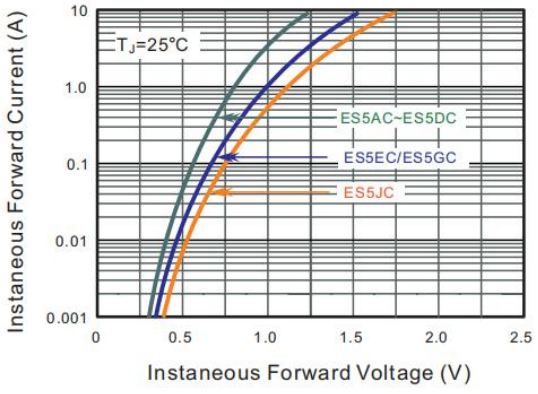


Fig.5 Typical Junction Capacitance

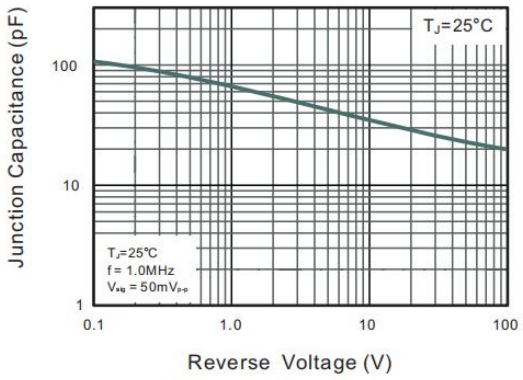
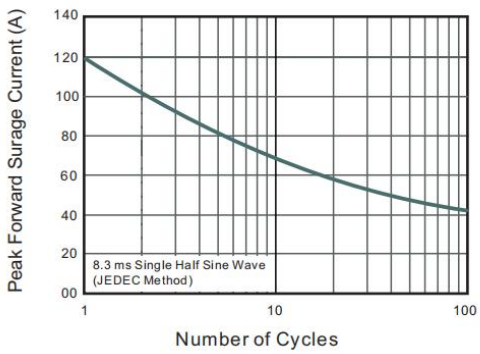
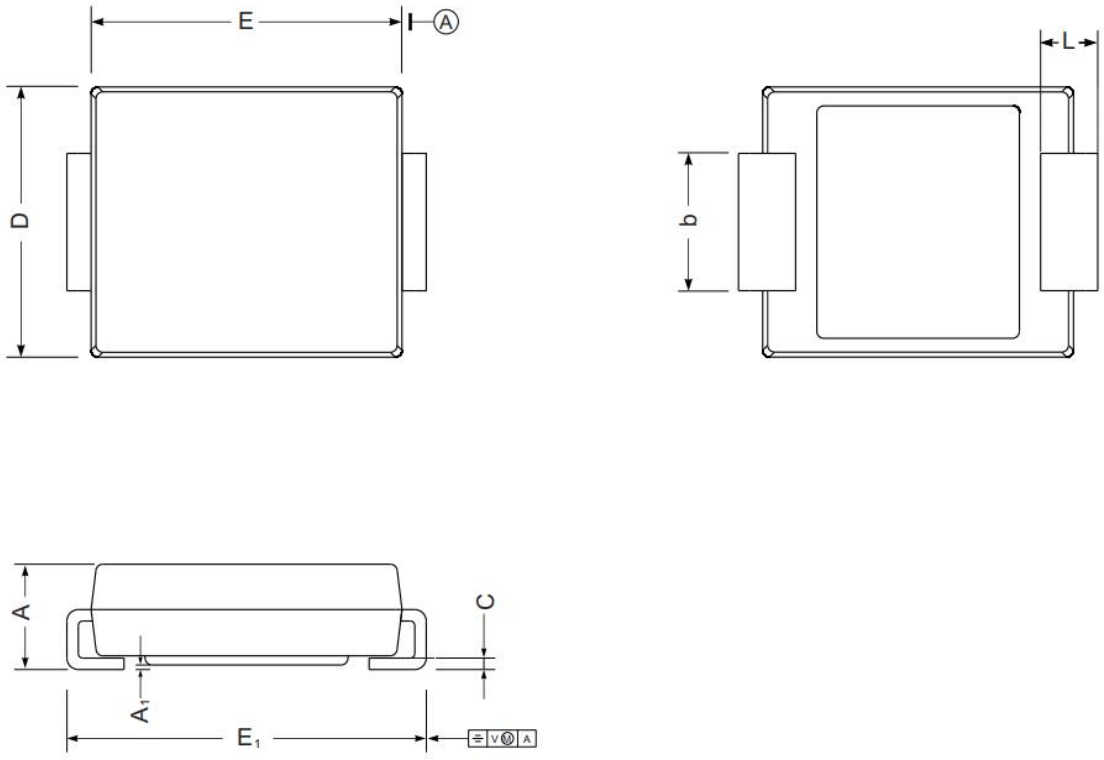


Fig.6 Maximum Non-Repetitive Peak
Forward Surage Current



Package Outline

Plastic surface mounted package; 2 leads SMC



UNIT		A	C	D	E	E_1	A_1	L	b
mm	max	2.62	0.31	6.2	7.0	8.0	0.21	1.6	3.25
	min	2.00	0.15	5.6	6.5	7.6	0.05	0.9	2.75
mil	max	103	12	244	276	315	8.3	63	128
	min	79	5.9	220	256	299	2.0	35	108

The recommended mounting pad size