

FEATURES

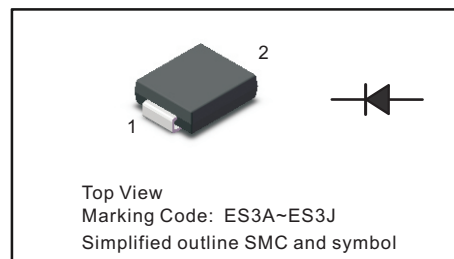
- ◆ For surface mount applications
- ◆ Glass passivated chip junction
- ◆ Low profile package
- ◆ Easy to pick and place
- ◆ Lead free in comply with EU RoHS2011/65/EU directives

MECHANICAL DATA

- ◆ Case: SMC molded plastic body
- ◆ Terminals: Solderable per MIL-STD-750 , Method 2026
- ◆ Weight: Approximated 0.022 grams

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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 derating by 20 %.

PARAMETER	SYMBOL	ES3AC -TN	ES3BC -TN	ES3CC -TN	ES3DC -TN	ES3EC -TN	ES3GC -TN	ES3JC -TN	UNIT
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°C	I _{F(AV)}	3.0							A
Peak Forward Surge Current (Note1)	I _{FSM}	90							A
Maximum Forward Voltage at 3.0 A	V _F	1				1.25		1.68	V
Maximum DC Reverse Current at Rated DC Blocking Voltage at T _A =25°C T _A =125°C	I _R	5 100							uA
Typical Junction Capacitance (Note2)	C _J	40							pF
Maximum Reverse Recovery Time (Note3)	T _{rr}	35							nS
Typical Thermal Resistance (Note4)	R _{θJA} R _{θJC}	40 16							°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150							°C

Notes: 1. Measured at 8.3 ms single half sine wave superimposed on rated load (JEDEC Method).

2. Measured at 1MHz and applied reverse voltage of 4 V D.C.

3. Measured with $I_F = 0.5 A$, $I_R = 1 A$, $I_{rr} = 0.25 A$.

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

RATINGS AND CHARACTERISTIC CURVES

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram

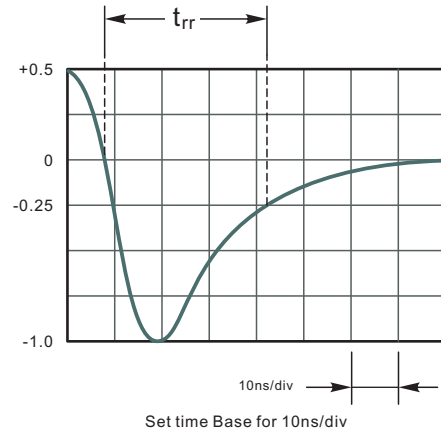
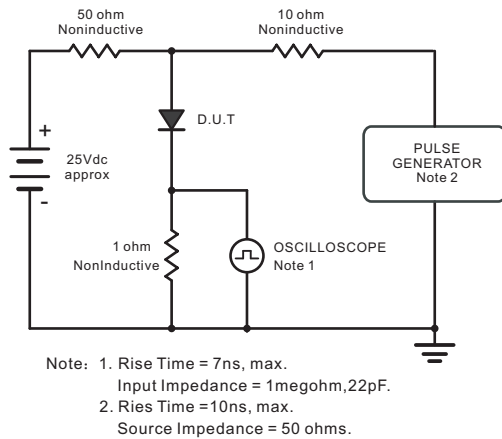


Fig.2 Maximum Average Forward Current Rating

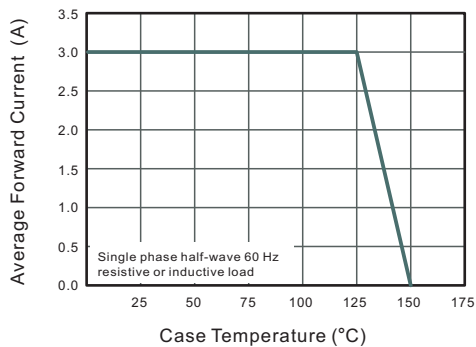


Fig.3 Typical Reverse Characteristics

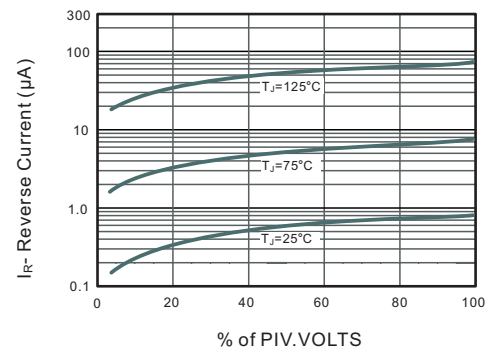


Fig.4 Typical Forward Characteristics

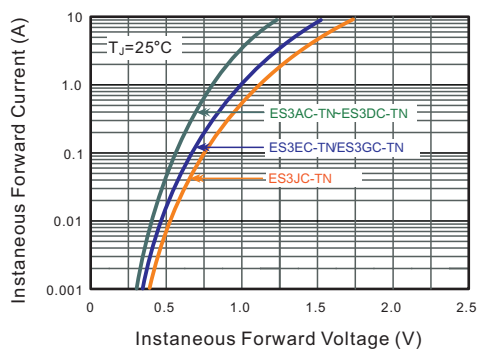


Fig.5 Typical Junction Capacitance

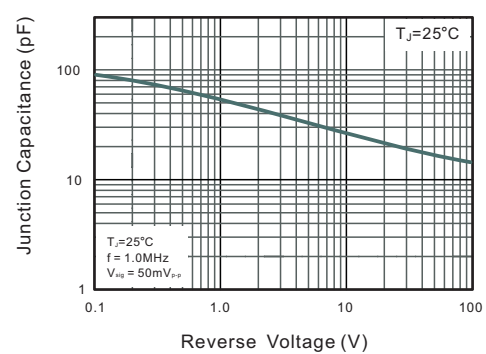
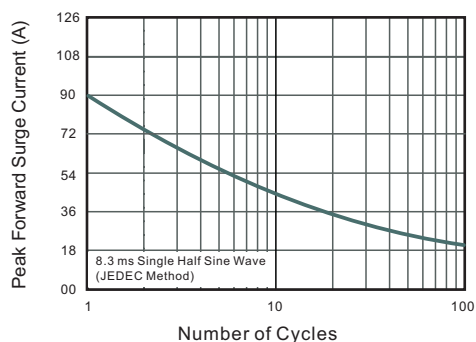
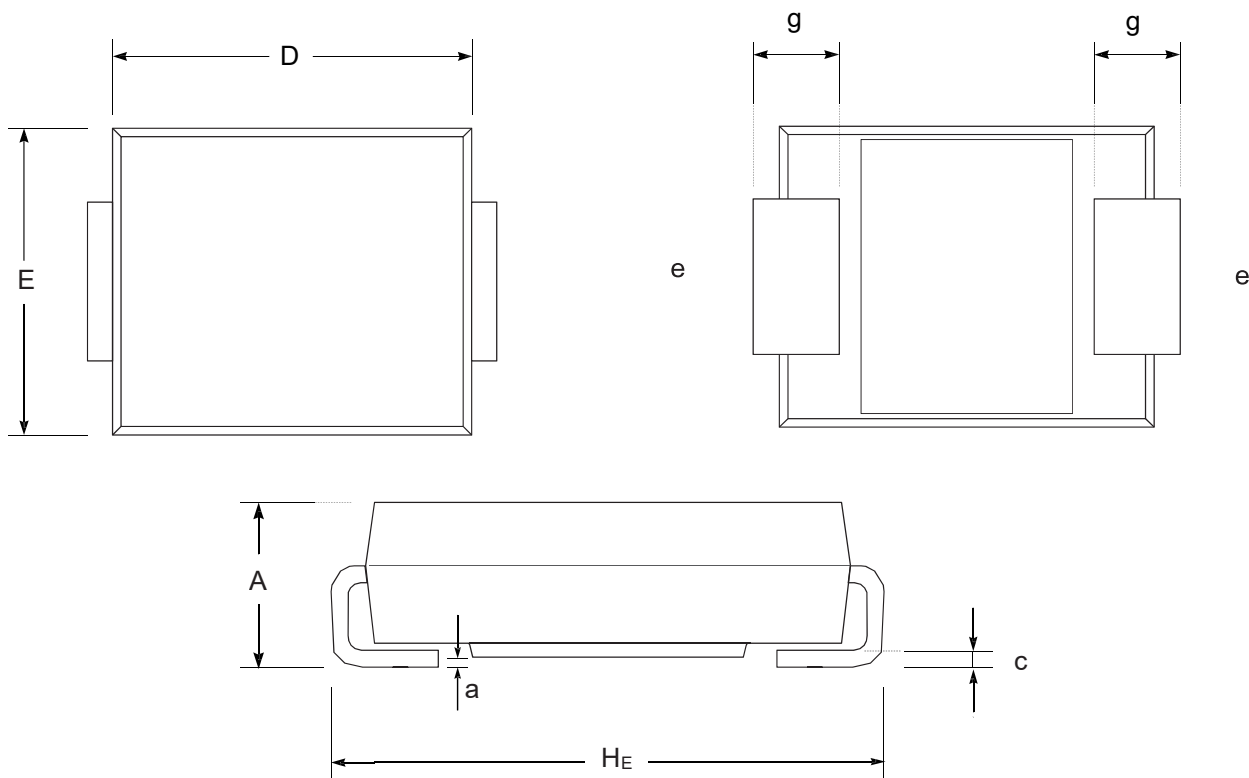


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

SMC



UNIT		A	D	E	H _E	a	c	e	g
mm	max	2.5	7.0	6.0	8.1	0.21	0.35	3.1	1.5
	min	2.1	6.7	5.7	7.7	0.05	0.25	2.9	0.9
mil	max	98	276	236	319	8.3	14	122	59
	min	82	264	224	303	2.0	10	114	35

Marking

Type number	Marking code
ES3AC-TN	ES3A
ES3BC-TN	ES3B
ES3CC-TN	ES3C
ES3DC-TN	ES3D
ES3EC-TN	ES3E
ES3GC-TN	ES3G
ES3JC-TN	ES3J

ORDERING INFORMATION

Device	Package	Shipping
ES3AC-TN thru ES3JC-TN	SMC	3,000/ Tape & Reel (13 inches)