

Surface Mount Superfast Recovery Rectifier
Reverse Voltage – 50 to 600 V Forward Current –2 A
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

MECHANICAL DATA

- Case: SMA
- Terminals: Solderable per MIL-STD-750 , Method 2026
- Approx. Weight: 0.055g / 0.002oz

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	ES2A	ES2B	ES2C	ES2D	ES2E	ES2G	ES2J	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。 C	I _{F(AV)}	2							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I _{FSM}	50							A
Maximum Forward Voltage at 2 A	V _F	1				1.25		1.68	V
Maximum DC Reverse Current T _a = 25℃ at Rated DC Blocking Voltage T _a = 125 ℃	I _R	5 100							μA
Typical Junction Capacitance at V _R =4V, f= 1 MHz	C _j	40							pF
Maximum Reverse Recovery Time ^(1)	t _{rr}	35							ns
Typical Thermal Resistance ^(2)	R _{θJA}	60							℃/W
Operating and Storage Temperature Range	T _j , T _{stg}	-55 ~ +150							℃

(1) Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = 0.25\text{A}$.

(2) P.C.B . mounted with 1.0 X 1.0" (2.54 X 2.54 cm) copper pad areas .

PIN	DESCRIPTION
1	Cathode
2	Anode

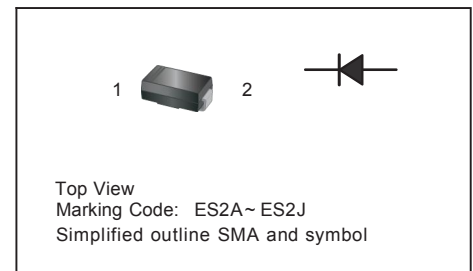
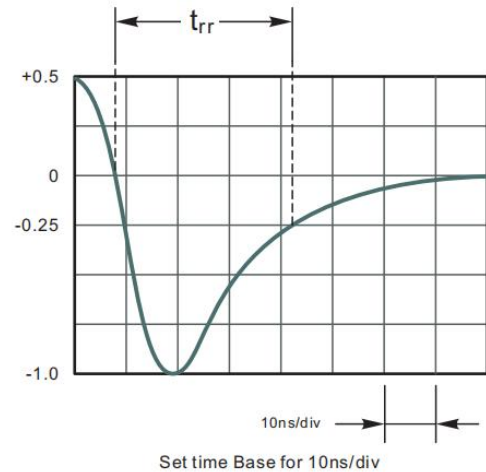
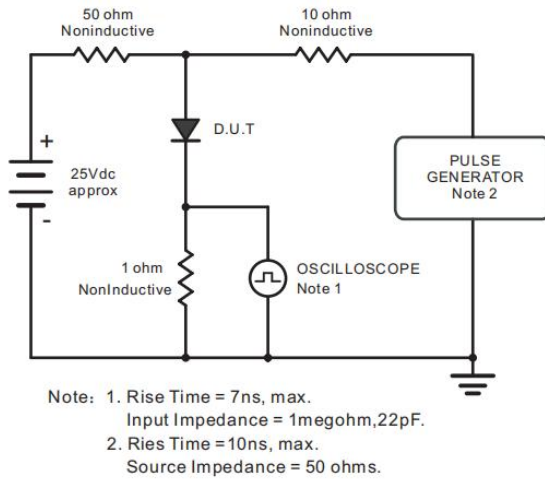
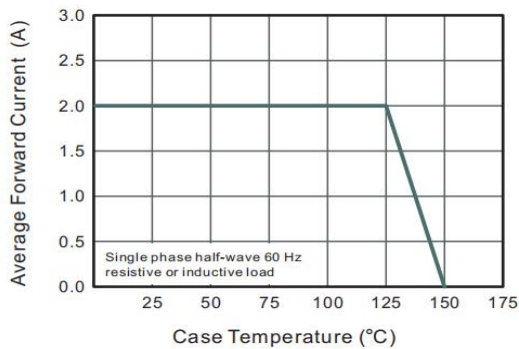
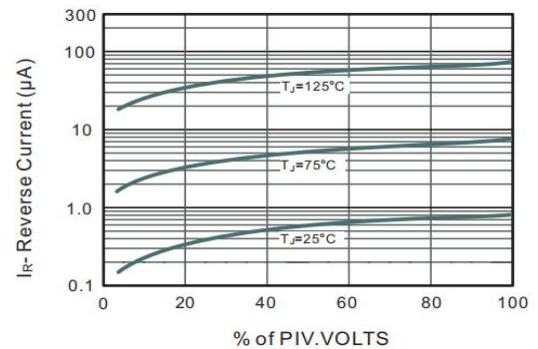
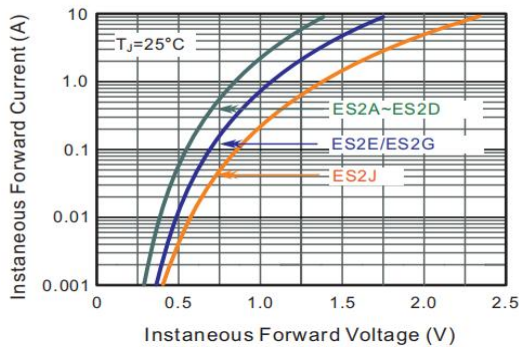
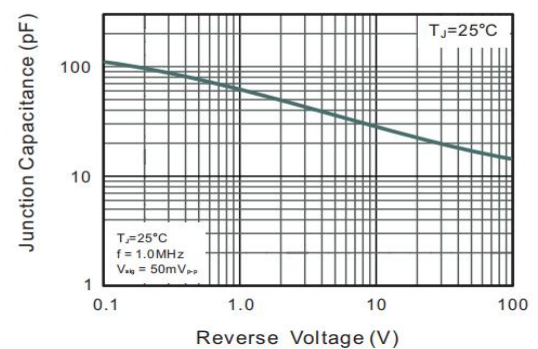
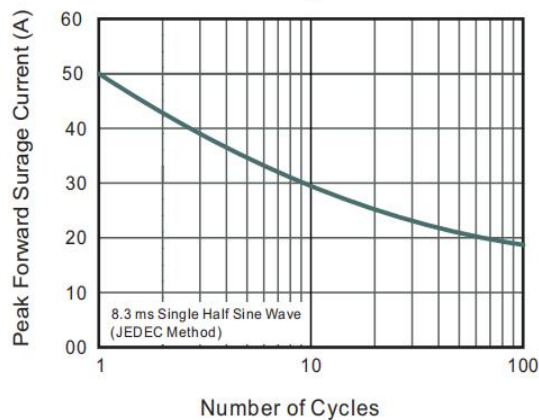
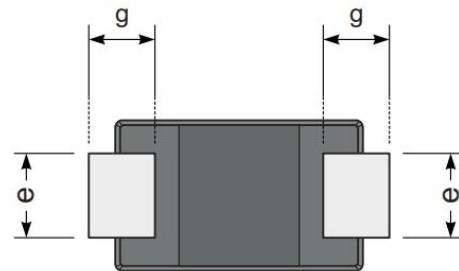
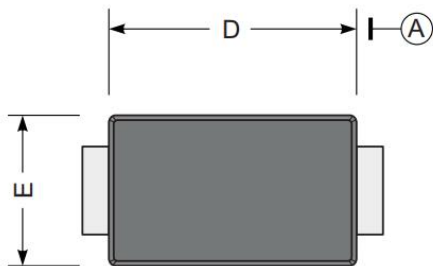
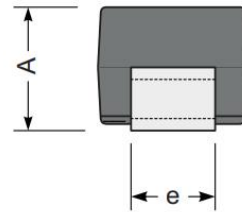
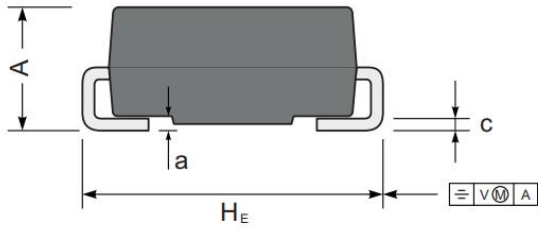
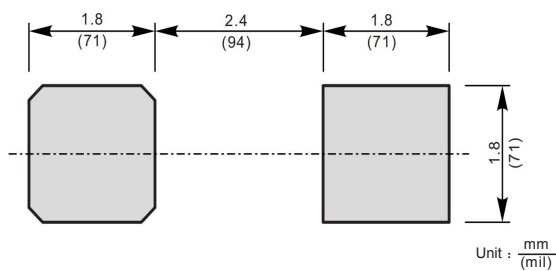


Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram

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


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	

The recommended mounting pad size

Marking

Type number	Marking code
ES2A	ES2A
ES2B	ES2B
ES2C	ES2C
ES2D	ES2D
ES2E	ES2E
ES2G	ES2G
ES2J	ES2J