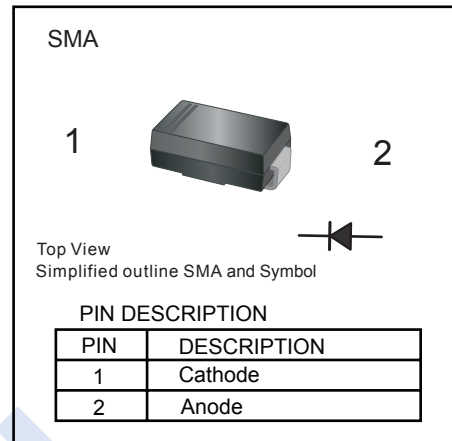


## Super-Fast Recovery Rectifier

### ES2A ~ ES2J

#### ■ Features

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Superfast reverse recovery time



#### ■ 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	Symbol	ES2A	ES2B	ES2C	ES2D	ES2E	ES2G	ES2J	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	600	V
Maximum RMS voltage	$V_{RSM}$	35	70	105	140	210	280	420	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	600	
Maximum Forward Voltage at 2 A	$V_F$	1			1.25		1.68		
Maximum Average Forward Rectified Current at $T_c = 125^\circ\text{C}$	$I_{F(AV)}$	2							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	$I_{FSM}$	50							
Maximum DC Reverse Current $T_a=25^\circ\text{C}$ at rated DC blocking voltage $T_a=125^\circ\text{C}$	$I_R$	5 100							$\mu\text{A}$
Typical Junction Capacitance *1	$C_j$	40							pF
Maximum Reverse Recovery Time *2	$t_{rr}$	35							ns
Typical thermal resistance *3	$R_{\theta JA}$	60							$^\circ\text{C}/\text{W}$
Junction Temperature	$T_j$	150							$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to 150							

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

\* 2 Measured with  $I_F = 0.5\text{A}$ ,  $I_R = 1\text{A}$ ,  $t_{rr} = 0.25\text{A}$ .

\* 3. P.C.B. mounted with 1.0 X 1.0" (2.54 X 2.54 cm) copper pad areas.

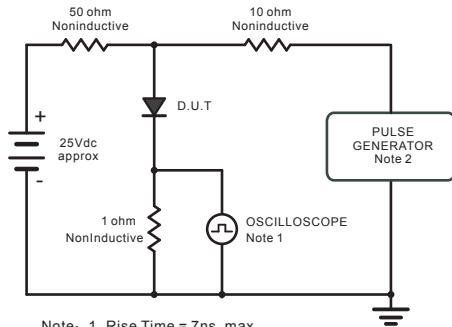
#### ■ Marking

NO.	ES2A	ES2B	ES2C	ES2D	ES2E	ES2G	ES2J
Marking	ES2A	ES2B	ES2C	ES2D	ES2E	ES2G	ES2J

# Super-Fast Recovery Rectifier

## ES2A ~ ES2J

### Typical Characteristics



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

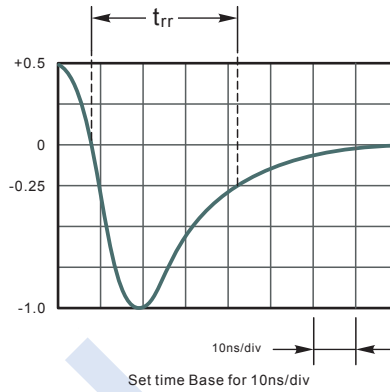


Fig.2 Maximum Average Forward Current Rating

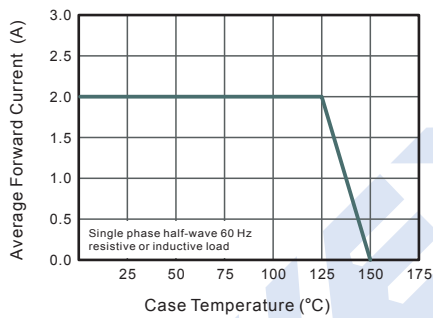


Fig.3 Typical Reverse Characteristics

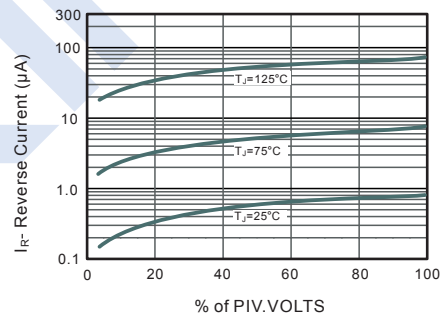


Fig.4 Typical Forward Characteristics

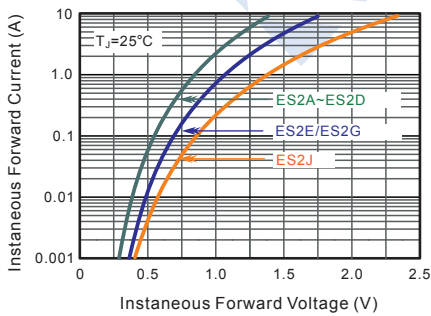


Fig.5 Typical Junction Capacitance

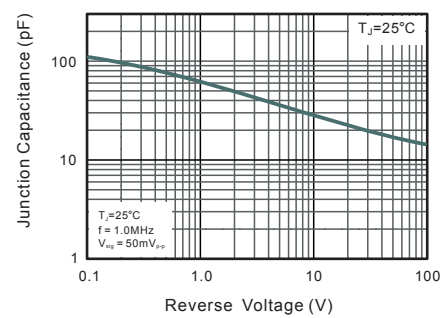
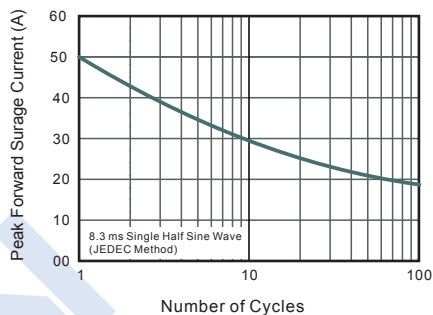


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current



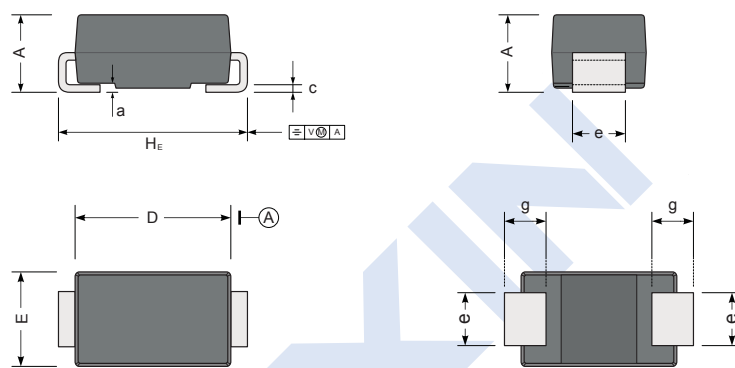
## Super-Fast Recovery Rectifier

### ES2A ~ ES2J

#### ■ Package Outline Dimensions

Plastic surface mounted package; 2 leads

SMA



UNIT		A	D	E	H <sub>E</sub>	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

