

Description

The ES2A~ES2J Surface Mount Superfast Recovery Rectifier, Reverse Voltage:50 to 600V, Forward Current:2.0A, SMA package.

Features

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

Applications

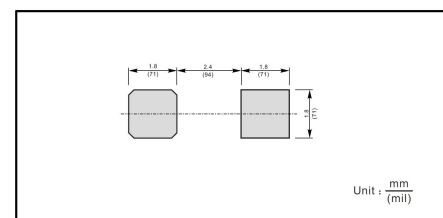
- General purpose.

Equivalent Circuit

Pinning


PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size


Marking

- See Marking Instructions.

Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating							Unit
		ES2A	ES2B	ES2C	ES2D	ES2E	ES2G	ES2J	
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 $T_c = 125^\circ\text{C}$	$I_{F(AV)}$	2.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	50							A
Typical Junction Capacitance at $V_R=4V, f=1\text{MHz}$	C_j	40							pF
Typical Thermal Resistance ¹⁾	$R_{\theta JA}$	60							°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55~+150							°C

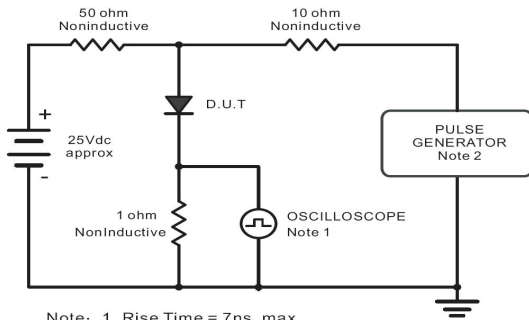
1) P.C.B. mounted with 1.0 X 1.0" (2.54 X 2.54 cm) copper pad areas.

Electrical Characteristics(Ta=25°C)

Parameter	Symbol	Test Conditions	Rating						Unit
			ES2A	ES2B	ES2C	ES2D	ES2E	ES2G	
Maximum Forward Voltage	V_F	$I_F=2.0A$	1.0			1.25		1.68	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_a=25^\circ\text{C}$	5.0						μA
		$T_a=125^\circ\text{C}$	100						μA
Maximum Reverse Recovery Time	t_{rr}	$I_F=0.5A$ $I_R=1.0A$ $I_{rr}=0.25A$	35						ns

Electrical Characteristic Curve

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



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

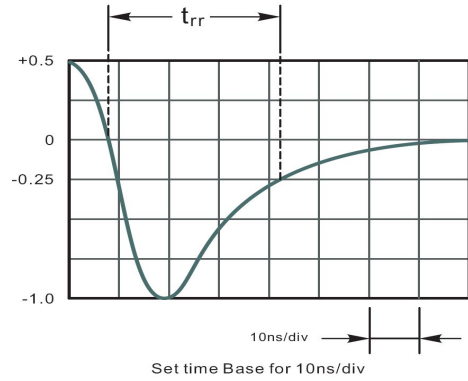


Fig.2 Maximum Average Forward Current Rating

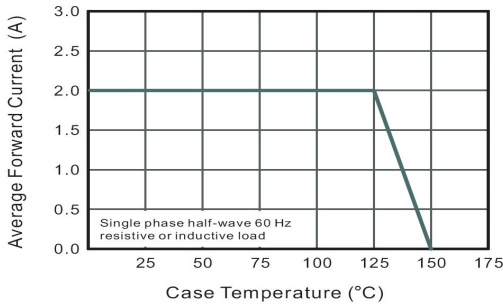


Fig.3 Typical Reverse Characteristics

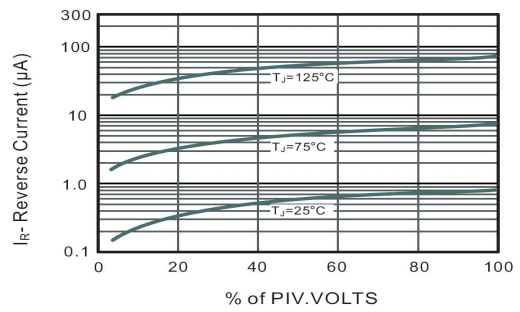


Fig.4 Typical Forward Characteristics

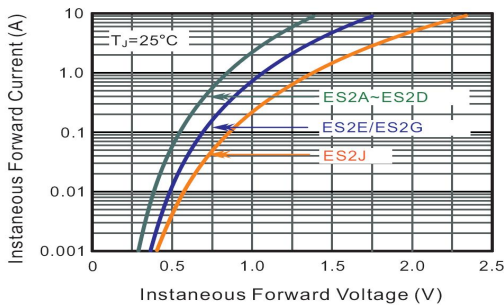


Fig.5 Typical Junction Capacitance

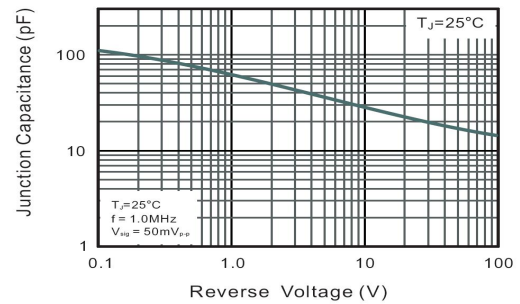
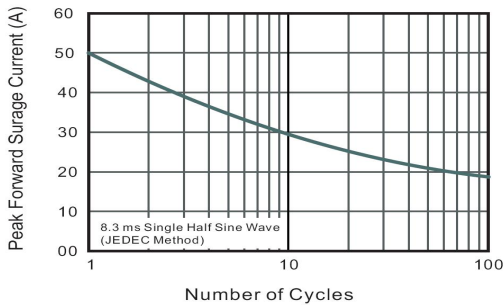


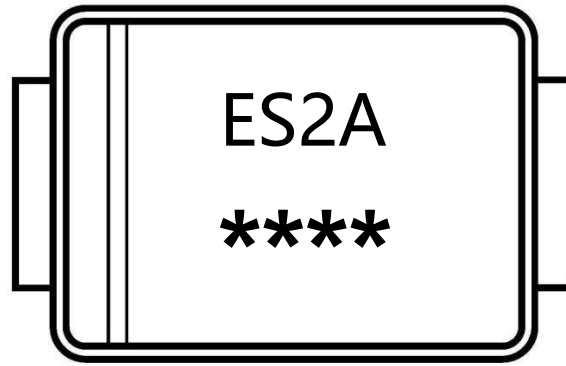
Fig.6 Maximum Non-Repetitive Peak Forward Surge Current



Marking instructions

Marking

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



Note:

ES2A:

****:

Product Type Code

Lot No. Code, The 1st * means:YM Code

The last 3 * means:little Lot No Co

Packaging SPEC.

Package Type	Units					Dimension (unit: mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SMA	5000	2	10000	7	70000	13" ×12	336X336X40	380X335X366

Package Dimensions

SMA

