



DESCRIPTION

The ES2AA ~ ES2JA are available in SMA package

ORDERING INFORMATION

Package Type	Part Number
SMA	ES2AA
	ES2BA
	ES2CA
	ES2DA
	ES2EA
	ES2GA
	ES2JA
Note	SPQ: 5,000pcs/Reel
AiT provides all RoHS Compliant Products	

FEATURES

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

MECHANICAL DATA

Case: SMA

Terminals: Solderable per MIL-STD-750,
Method 2026

Approx. Weight: 0.055g / 0.002oz

PIN DESCRIPTION





ABSOLUTE 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, derate current by 20%.

Parameter	Symbol	ES2AA	ES2BA	ES2CA	ES2DA	ES2EA	ES2GA	ES2JA	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 $T_C=125^\circ\text{C}$	$I_{F(AV)}$	2							A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	50							A
Maximum Forward Voltage at 2A	V_F	1				1.25		1.68	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R					5		100	uA
Typical Junction Capacitance at $V_R=4V, f=1\text{MHz}$	C_J	40							pF
Maximum Reverse Recovery Time ^{NOTE1}	t_{rr}	35							ns
Typical Thermal Resistance ^{NOTE2}	$R_{\theta JA}$	60							°C/W
Operating and Storage Temperature Range	$T_{J,}$ T_{STG}	-55 ~150							°C

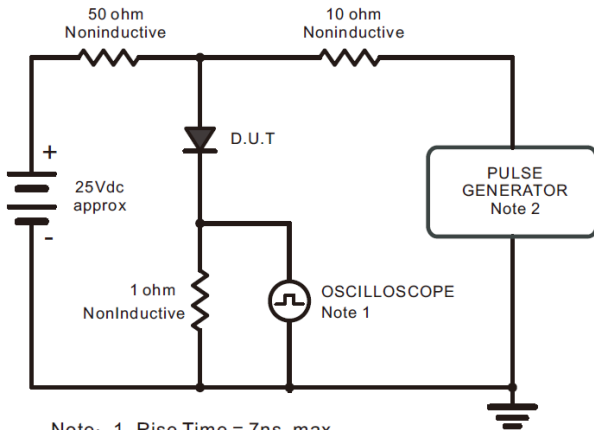
NOTE1: Measured with $I_F = 0.5A, I_R = 1A, I_{rr} = 0.25A$

NOTE2: P.C.B. mounted with 1.0 X 1.0" (2.54 X 2.54 cm) copper pad areas.



TYPICAL CHARACTERISTICS

Figure. 1 Reverse Recovery Time Characteristic and Test Circuit Diagram



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

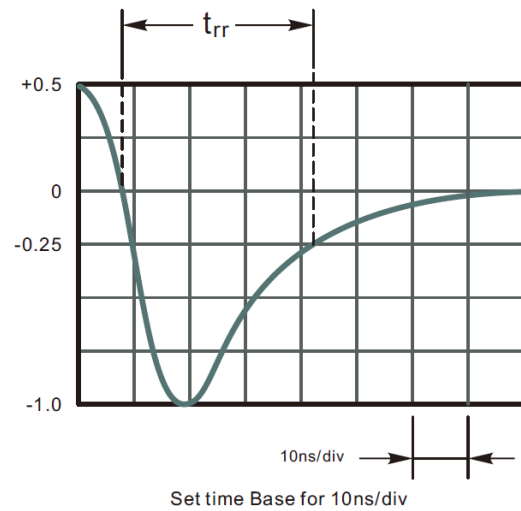


Figure. 2 Maximum Average Forward Current Rating

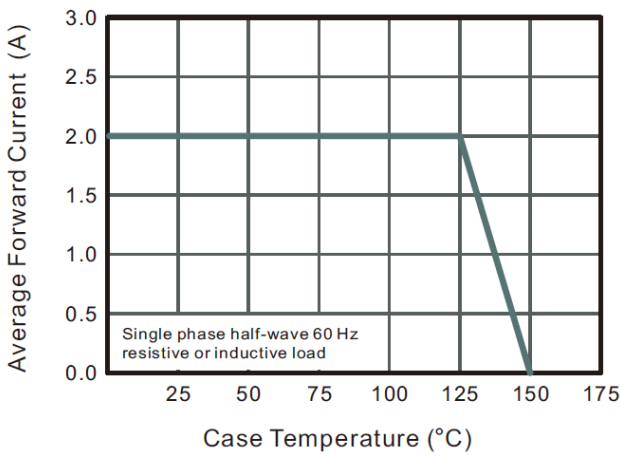


Figure. 3 Typical Reverse Characteristics

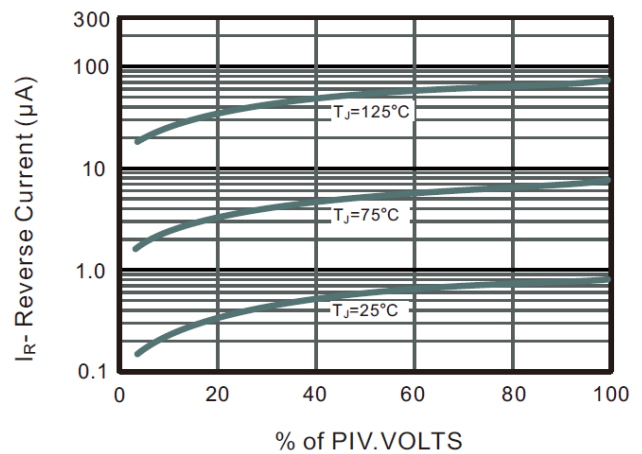




Figure. 4 Typical Forward Characteristics

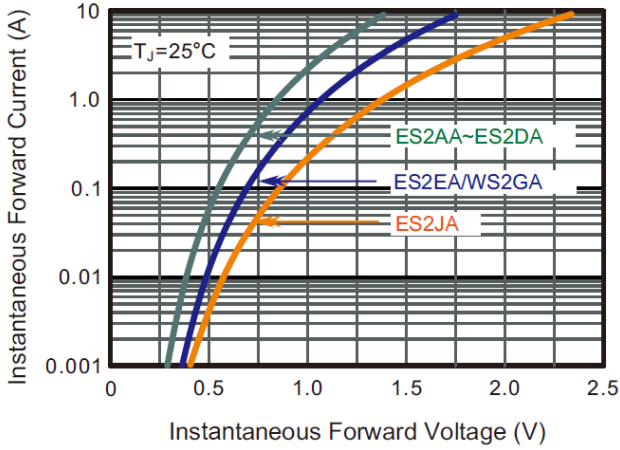


Figure. 5 Typical Junction Capacitance

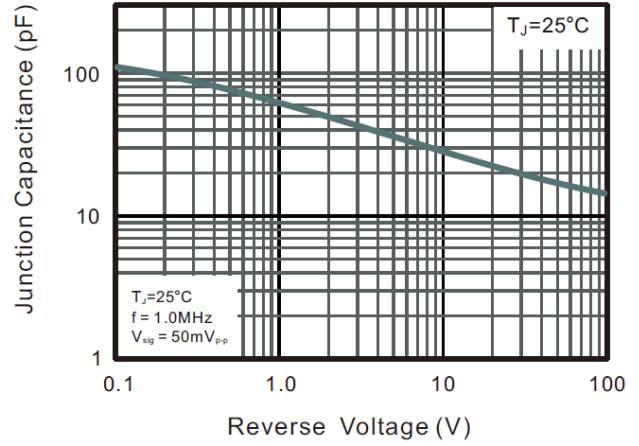
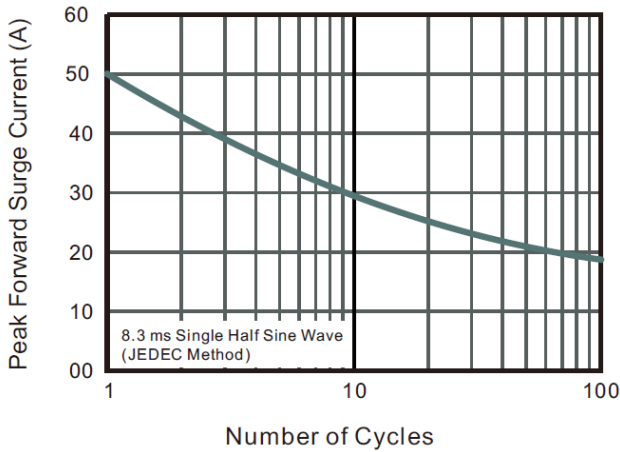


Figure. 6 Maximum Non-Repetitive Peak Forward Surge Current

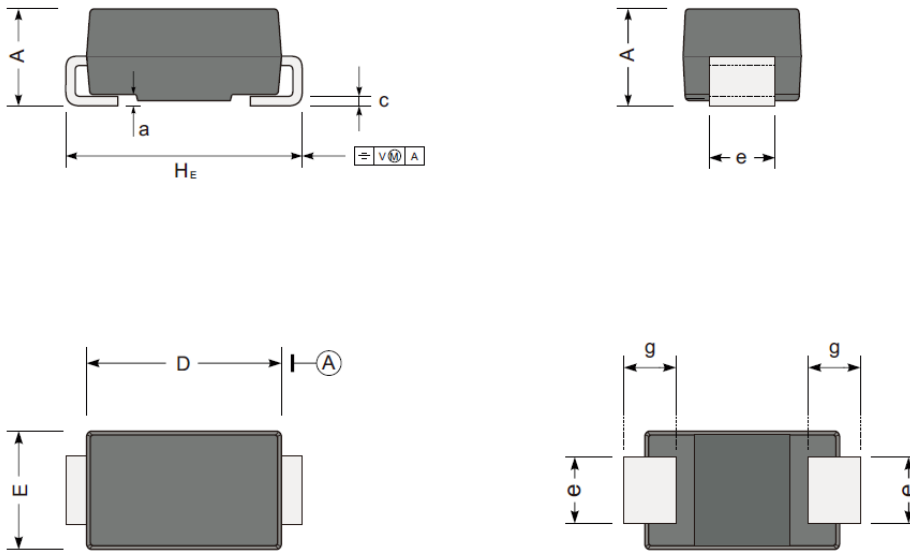




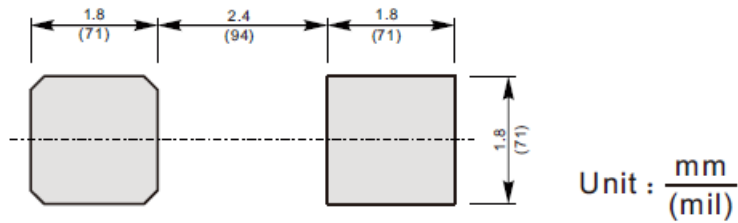
PACKAGE INFORMATION

Dimension in SMA(Unit: mm)

Plastic surface mounted package; 2 leads



The recommended mounting pad size



UNIT		A	D	E	He	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	3	51	35	



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