

## Surface Mount Super Fast Recovery Rectifier

## ES2AA—ES2MA

### Features

- ◆ Low profile package
- ◆ Ideal for automated placement
- ◆ Glass passivated chip junction
- ◆ High forward surge capability
- ◆ Super fast reverse recovery time



### Mechanical Data

**Case:** DO-214AC (SMA ) Molded plastic body

**Terminals:** Plated leads solderable per MIL-STD-750, Method 2026

**High temperature soldering guaranteed:** 260°C/10 seconds

**Polarity:** Cathode line denotes the cathode end

**Mounting Position:** Any

### Maximum Ratings & Electrical Characteristics

Ratings at TA = 25°C unless otherwise specified

Characteristic	Symbol	ES2AA	ES2BA	ES2DA	ES2FA	ES2GA	ES2JA	ES2KA	ES2MA	Units
Peak repetitive reverse voltage	VRRM	50	100	200	300	400	600	800	1000	V
RMS reverse voltage	VRMS	35	70	140	210	280	420	560	700	V
DC blocking voltage	VDC	50	100	200	300	400	600	800	1000	V
Maximum average forward output current	IF(AV)	2								A
Peak forward surge current, 8.3ms single half-sine-wave, @TJ = 25°C	IFSM	50								A
Rating for fusing (t<8.3ms)	I2t	10.4								A2sec
Maximum instantaneous forward voltage @ 2A	VF	0.95		1.3		1.7		1.85		V
Maximum reverse recovery time	Trr	35								nS
Maximum Reverse current @TA =25°C	IR	10								μ A
Rated VR @TA =125°C		100								

### Thermal Characteristics

Characteristic	Symbol	ES2AA	ES2BA	ES2DA	ES2FA	ES2GA	ES2JA	ES2KA	ES2MA	Units
Typical thermal resistance (Note 1)	R ΘJA	85								°C /W
	R ΘJL	35								
Operating junction temperature range	TJ	- 55 ---- + 150								°C
Storage temperature range	TSTG	- 55 ---- + 150								°C

Note:

(1) Units mounted on P.C.B. with 5.0 x 5.0 mm land areas.

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Ratings and Characteristic Curves ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

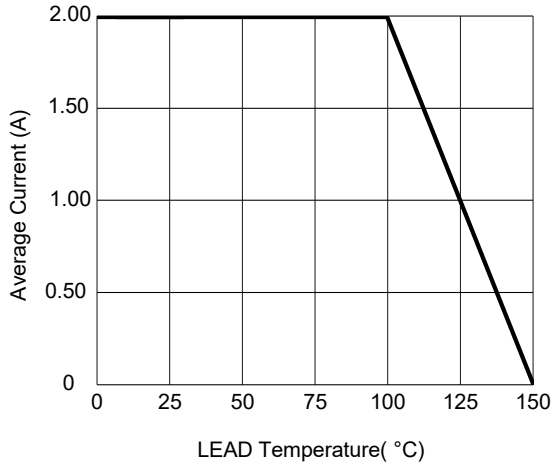


Fig.1-Forward Current Derating Curve

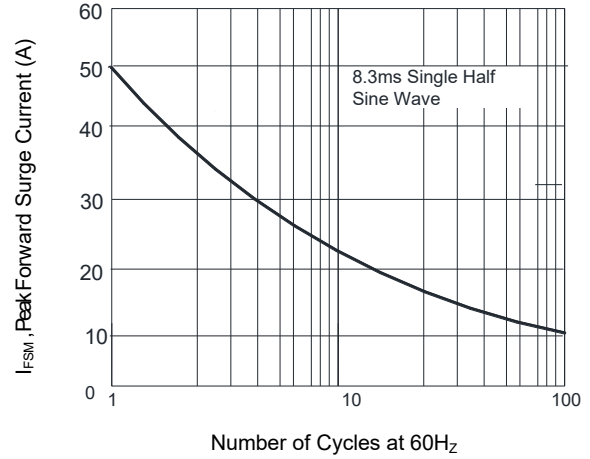


Fig.2- Surge Forward Current Capability

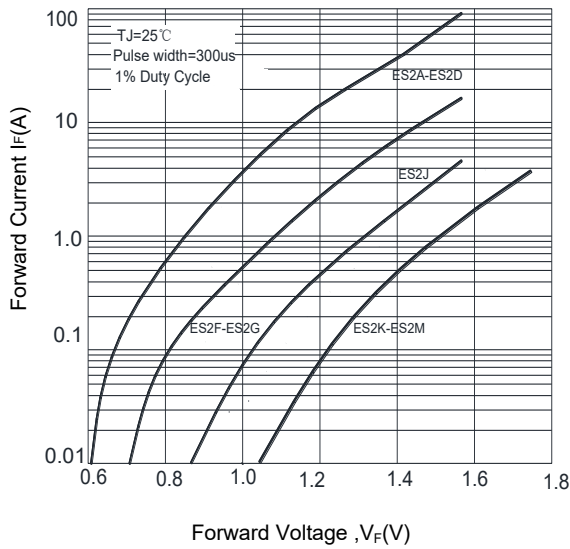


Fig.3- Typical Forward Voltage Characteristic

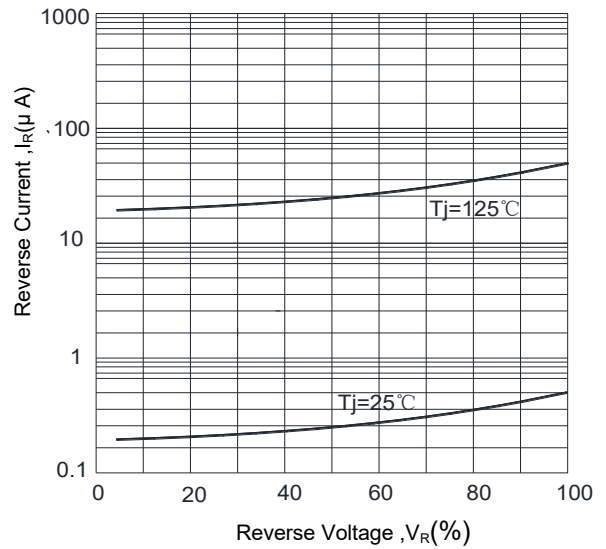


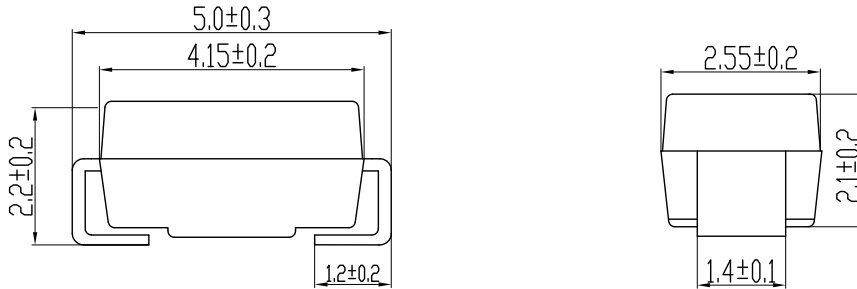
Fig.4- Typical Reverse Characteristic

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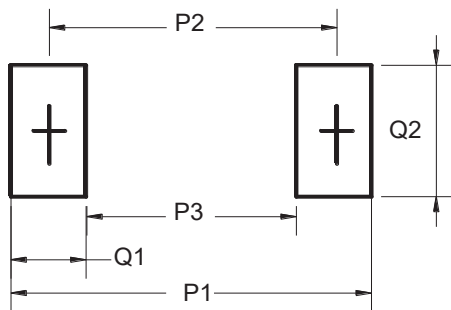
## ES2AA-ES2MA

### Package Outline Dimensions(unit:mm)

#### DO-214AC (SMA)



### Mounting Pad Layout(unit:mm)



Dim	Millimeters
P1	6.50
P2	4.00
P3	1.50
Q1	2.50
Q2	1.70

### Ordering Information

Part No.	Marking	Package	Shipping
ES2AA	ES2AA	SMA	5000PCS /Tape&Reel
ES2BA	ES2BA	SMA	5000PCS /Tape&Reel
ES2DA	ES2DA	SMA	5000PCS /Tape&Reel
ES2FA	ES2FA	SMA	5000PCS /Tape&Reel
ES2GA	ES2GA	SMA	5000PCS /Tape&Reel
ES2JA	ES2JA	SMA	5000PCS /Tape&Reel
ES2KA	ES2KA	SMA	5000PCS /Tape&Reel
ES2MA	ES2MA	SMA	5000PCS /Tape&Reel