

Surface Mount Super Fast Recovery Rectifier

ES2A—ES2M

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-214AA (SMB) 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	ES2A	ES2B	ES2D	ES2F	ES2G	ES2J	ES2K	ES2M	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	ES2A	ES2B	ES2D	ES2F	ES2G	ES2J	ES2K	ES2M	Units
Typical thermal resistance (Note 1)	R ΘJA	75								°C /W
	R ΘJL	25								
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)

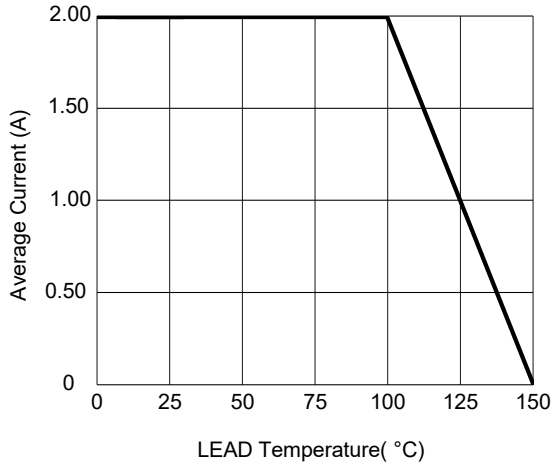


Fig.1-Forward Current Derating Curve

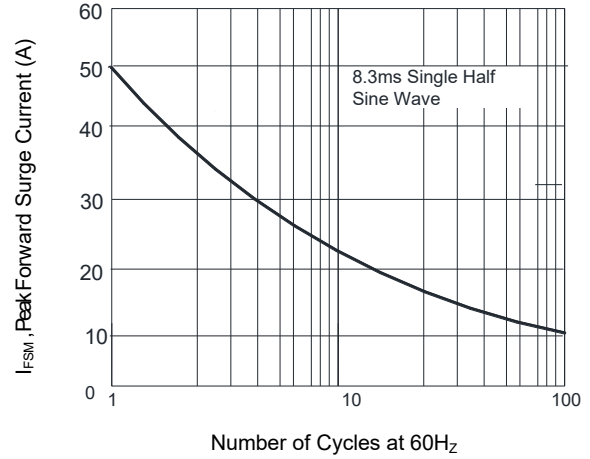


Fig.2- Surge Forward Current Capability

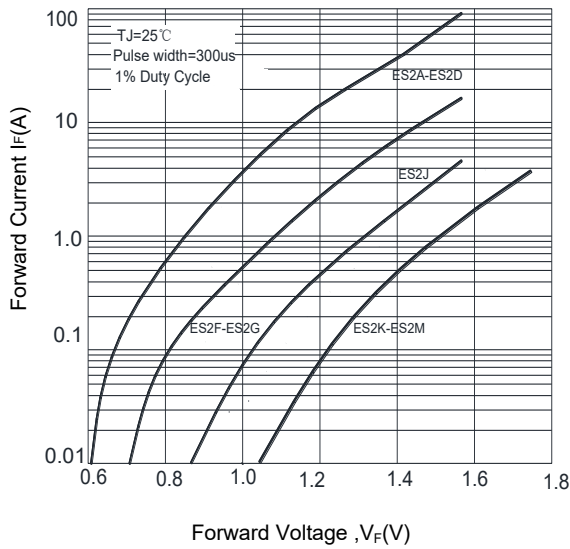


Fig.3- Typical Forward Voltage Characteristic

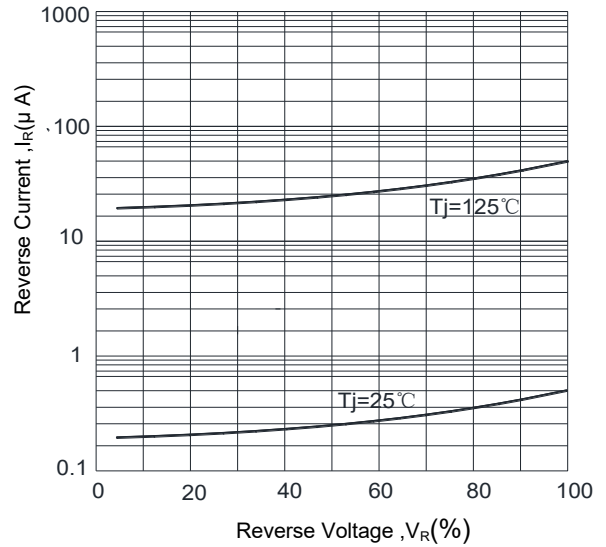


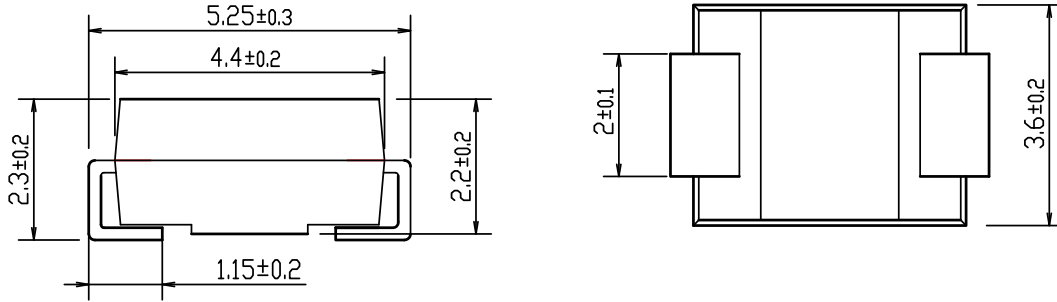
Fig.4- Typical Reverse Characteristic

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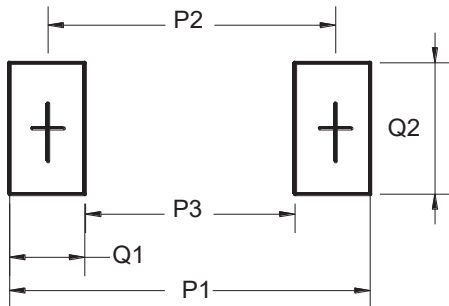
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Package Outline Dimensions(unit:mm)

DO-214AA (SMB)



Mounting Pad Layout(unit:mm)



Dim	Millimeters
P1	6.80
P2	4.30
P3	1.80
Q1	2.50
Q2	2.30

Ordering Information

Part No.	Marking	Package	Shipping
ES2A	ES2A	SMB	3000PCS /Tape&Reel
ES2B	ES2B	SMB	3000PCS /Tape&Reel
ES2D	ES2D	SMB	3000PCS /Tape&Reel
ES2F	ES2F	SMB	3000PCS /Tape&Reel
ES2G	ES2G	SMB	3000PCS /Tape&Reel
ES2J	ES2J	SMB	3000PCS /Tape&Reel
ES2K	ES2K	SMB	3000PCS /Tape&Reel
ES2M	ES2M	SMB	3000PCS /Tape&Reel