

# ES2AA THRU ES2JA

## Super Fast Recovery Rectifier Diode

### Features

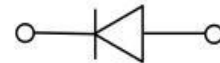
- Ideal for automated placement
- Glass passivated chip junction
- High frequency
- High forward surge capability
- Meets MSL level 1, per J-STD-020,LF maximum peak of 260 °C

### Typical Application

For use in high frequency rectification of power supply, inverters, converters, and freewheeling diodes for consumer and telecommunication.

### Mechanical Data

- Package: DO-214AC(SMA)  
Molding compound meets UL 94 V-0 flammability rating,RoHS-compliant
- Terminals:Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Cathode line denotes the cathode end



### ■ Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	Symbol	Unit	Conditions	ES2							
				AA	BA	CA	DA	FA	GA	HA	JA
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V		50	100	150	200	300	400	500	600
Average Forward Current	I <sub>F(AV)</sub>	A	60Hz Half-sine wave, Resistance load, TL=110°C	2.0							
Surge(Nonrepetitive)Forward Current	I <sub>FSM</sub>	A	60HZ Half-sine wave, 1 cycle, Ta=25°C	50							
Storage Temperature	T <sub>stg</sub>	°C		-55 ~ +150							
Junction Temperature	T <sub>j</sub>	°C		-55 ~ +150							

### Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	Symbol	Unit	Conditions	ES2							
				AA	BA	CA	DA	FA	GA	HA	JA
Peak Forward Voltage	V <sub>FM</sub>	V	I <sub>F</sub> =2.0A	0.95				1.3		1.7	
Peak Reverse Current	I <sub>RRM1</sub>	µA	V <sub>RM</sub> =V <sub>RRM</sub>	5.0							
	I <sub>RRM2</sub>			350							
Maximum reverse recovery time	T <sub>rr</sub>	ns	I <sub>F</sub> =0.5A,I <sub>R</sub> =1.0A,I <sub>rr</sub> =0.25A	35							
Thermal Resistance(Typical)	R <sub>θJ-A</sub>	°C/W	Between junction and ambient	75 <sup>1)</sup>							
	R <sub>θJ-L</sub>		Between junction and terminal	20 <sup>1)</sup>							

Notes:

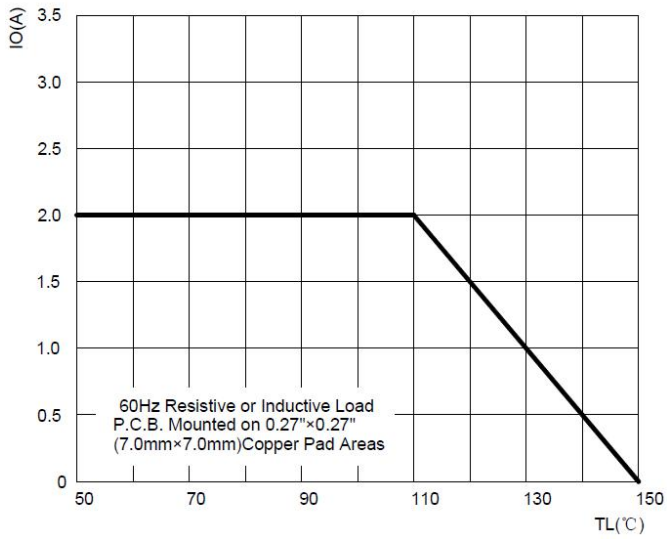
<sup>1)</sup> Thermal resistance from junction to ambientand from junction to lead mounted on P.C.B. with 0.27" x 0.27" (7.0 mm x 7.0 mm)copper pad areas



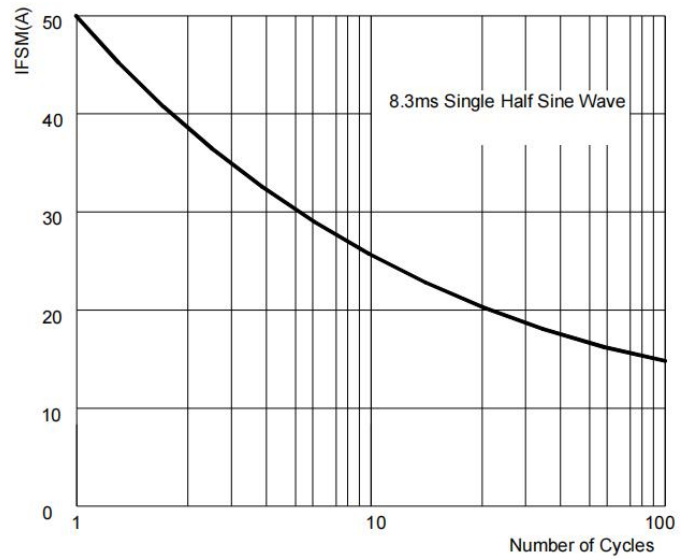
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## ■ Characteristics (Typical)

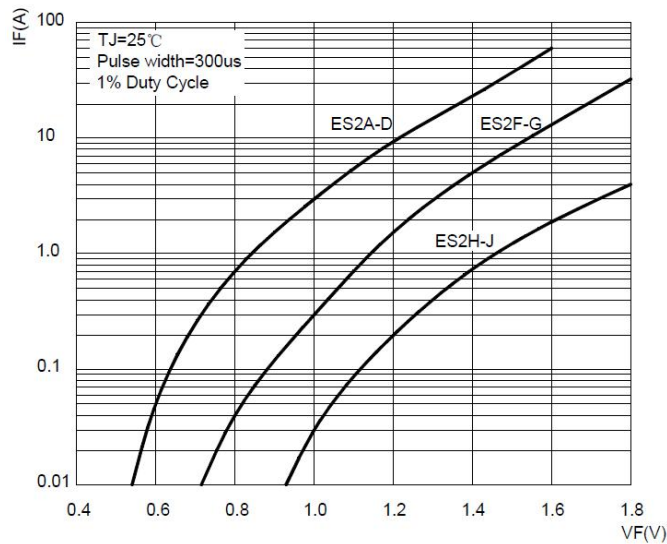
**FIG1: Forward Current Derating Curve**



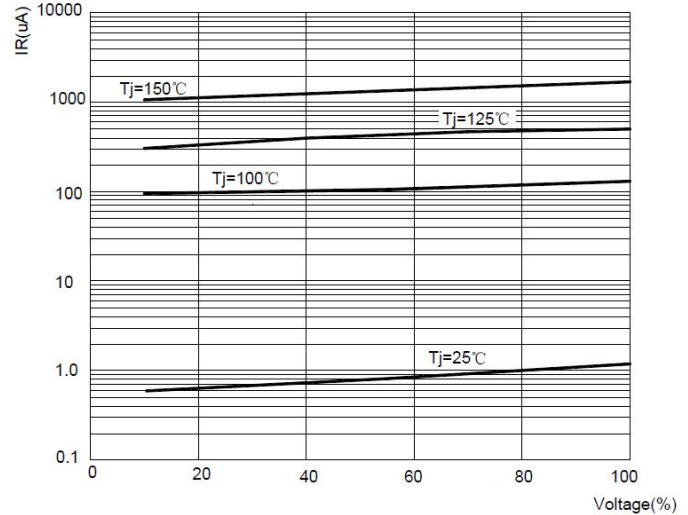
**FIG2: Maximum Non-Repetitive Forward Surge Current**



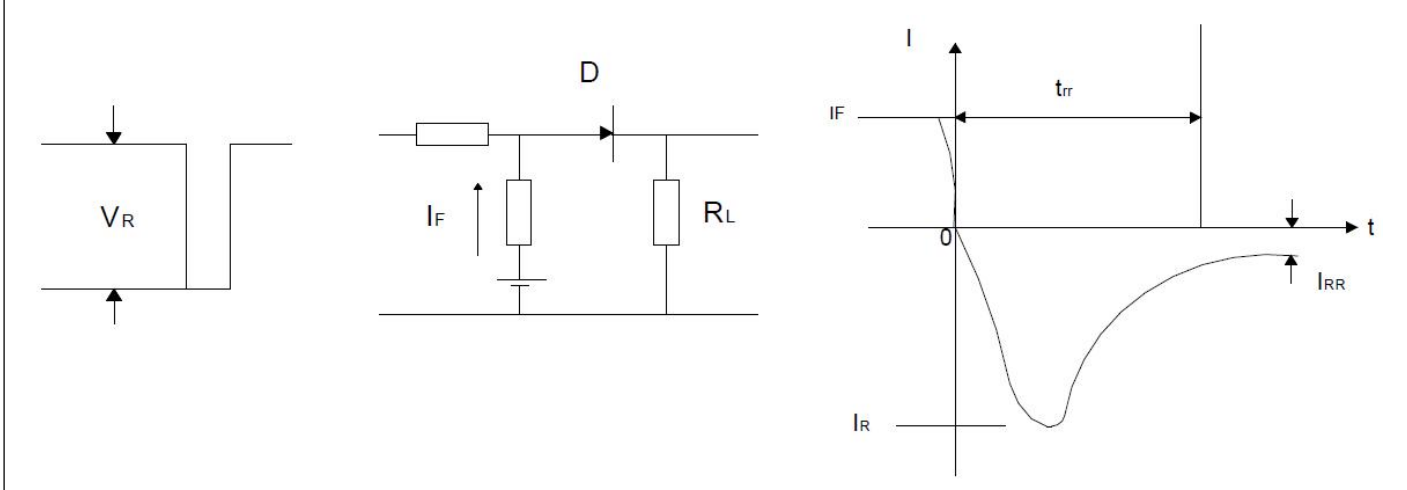
**FIG3: Typical Forward Characteristics**



**FIG4: Typical Reverse Characteristics**



**FIG5: Diagram of circuit and Testing wave form of reverse recovery time**



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### Ordering Information (Example)

PREFERED	PACKAGE CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
ES2AA~ES2JA	DO-214AC(SMA)	5000	10000	80000	13" reel
ES2AA~ES2JA	DO-214AC(SMA)	7500	15000	120000	13" reel

### Outline Dimensions

