

2A, 200V~600V Super Fast Recovery Rectifier Diode

Features

- AEC-Q101 Qualified
- 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



SMA (DO-214AC)

Typical Applications

For use in high frequency rectification and freewheeling application in switching mode converters and inverters for consumer, computer, telecommunication and automotive



Mechanical Data

- Case: SMA(DO-214AC) molding compound meets UL94V-0 flammability rating, RoHS-Compliant
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Cathode line denotes the cathode end

Cathode  Anode 

Maximum Ratings ($T_a = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	ES2DA	ES2GA	ES2JA	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	200	400	600	V
Average Forward Current 60Hz Half-sine wave, Resistance load, $T_L=110^\circ\text{C}$	$I_{F(AV)}$	2.0			A
Average Forward Current 60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	I_{FSM}	50			A
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 55 to + 175°C			

Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

Parameter	Symbol	ES2DA	ES2GA	ES2JA	Unit
Peak Forward Voltage $I_F=2.0\text{A}$	V_{FM}	0.95	1.3	1.7	V
Peak Reverse Current $T_a=25^\circ\text{C}$ $T_a=125^\circ\text{C}$	I_{RRM1} I_{RRM2}	5 350			μA
Maximum reverse recovery time $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$	T_{rr}	35			ns
Thermal Resistance(Typical) ¹⁾ Between junction and ambient Between junction and Terminal	$R_{\theta J-A}$ $R_{\theta J-L}$	75 20			$^\circ\text{C/W}$

Notes: Thermal resistance from junction to ambient and 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

Electrical Characteristics Curves

FIG1: Forward Current Derating Curve

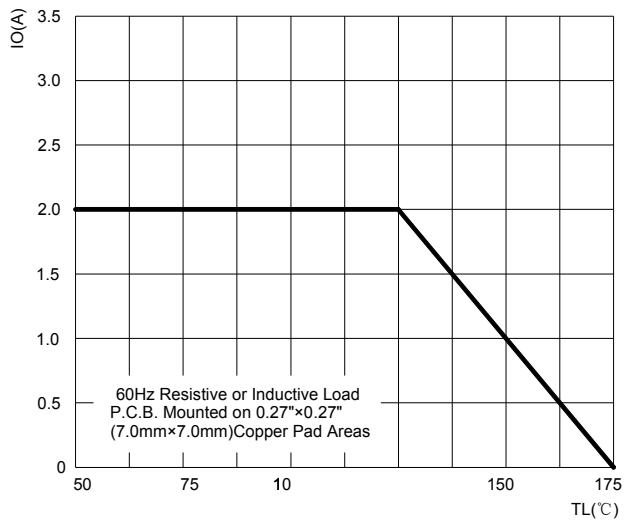


FIG2: Maximum Non-Repetitive Forward Surge Current

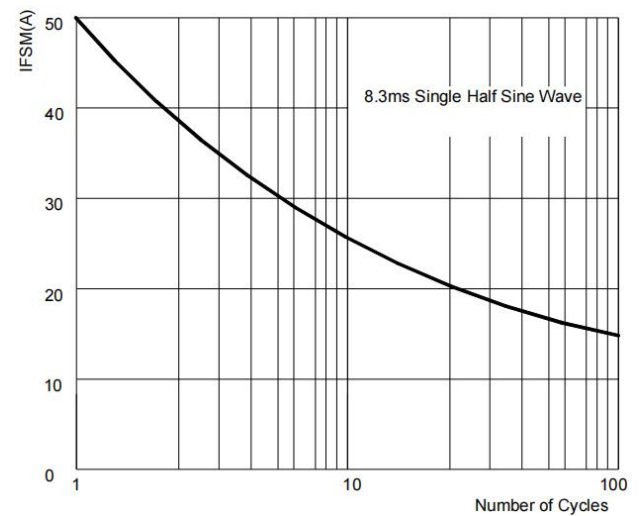


FIG3: Typical Forward Characteristics

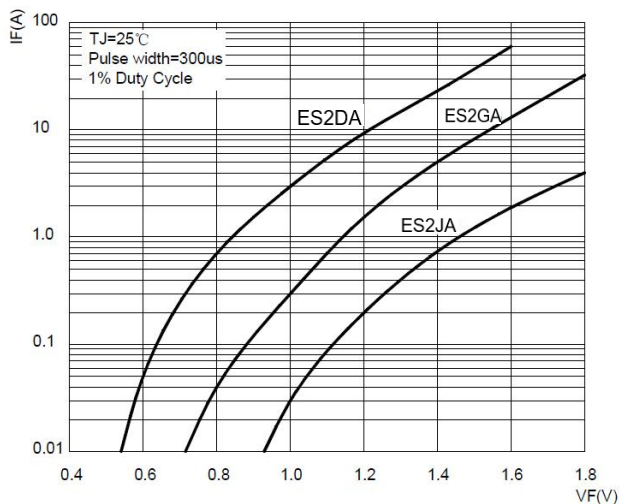


FIG4: Typical Reverse Characteristics

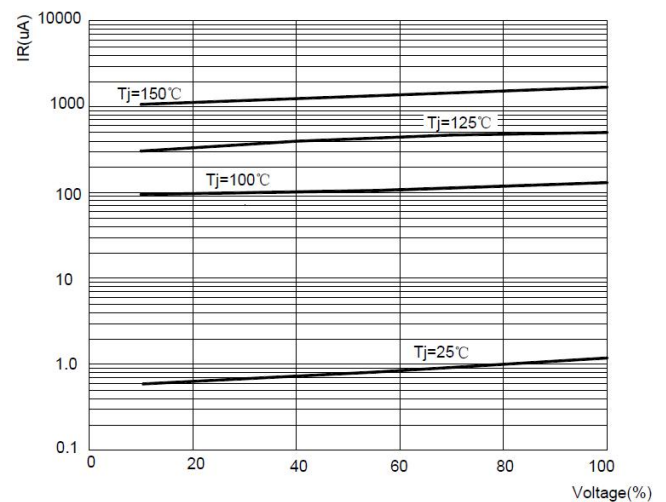
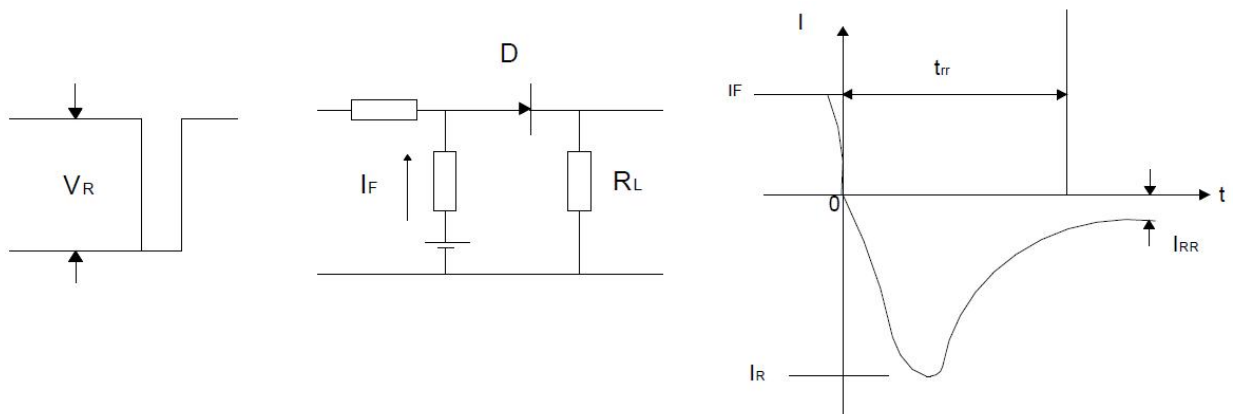


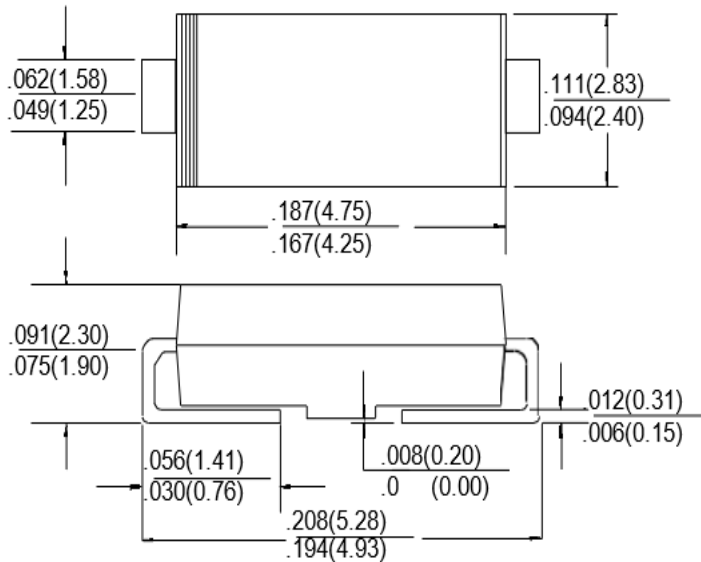
FIG5: Diagram of circuit and Testing wave form of reverse recovery time



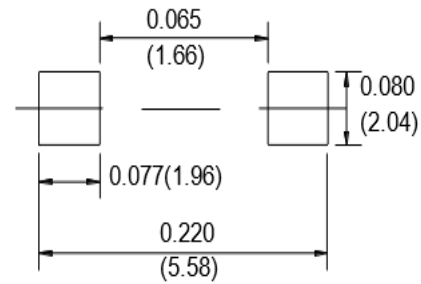
ES2DA ~ES2JA

Package Outline Dimensions in inches (millimeters)

SMA(DO-214AC)



Mounting Pad Layout



Packing Information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SMA	12	4±0.1	0.1575±0.004	330	13	7,500

Marking information

" ES2JA " = Part No.

" YWW " = Date Code Marking

" Y " = Last digit of year (ex: 2 = 2022)

" WW " = Week Code (ex: 24 = the 24th week of the year)

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