

1.0A Surface Mount Super Fast Rectifier

Features

- Low profile surface mounted package
- Glass passivated junction
- Ultra fast recovery time for high efficiency
- Plastic package has underwriters laboratory flammability classification 94V-0
- High temperature soldering: 250 °C /10 seconds at terminals
- RoHS compliant



Mechanical Data

Case:	JEDEC DO-214AA molded plastic
Terminals:	Solder plated, solderable per MIL-STD-750, Method 2026
Polarity:	cathode end indicated by color band
Weight:	0.003 Ounce, 0.093 gram

Maximum Ratings ($T_{Ambient}=25^{\circ}\text{C}$ unless noted)

Symbol	Description	ES2A	ES2B	ES2D	ES2F	ES2G	ES2J	ES2K	Unit	Conditions
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	50	100	200	300	400	600	800	V	
V_{RMS}	Maximum RMS Voltage	35	70	140	210	280	420	560	V	
V_{DC}	Maximum DC Blocking Voltage	50	100	200	300	400	600	800	V	
I_{AV}	Maximum Average Forward Rectified Current	2.0							A	TL=110°C
I_{FSM}	Peak Forward Surge Current	65					60		A	8.3ms single half sine-wave superimposed on rated load (JEDEC method)
T_J,T_{STG}	Operating Junction and Storage Temperature Range	-55 to 150							° C	

Note: Single phase half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

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DS2A ~DS2K

Electrical Characteristics ($T_{Ambient}=25^{\circ}\text{C}$ unless noted)

Symbol	Description	ES2A	ES2B	ES2D	ES2F	ES2G	ES2J	ES2K	Unit	Conditions
V _F	Maximum Instantaneous Forward Voltage	0.95			1.25		1.7	2.2	V	I _F at 1.0 A
I _R	Maximum DC Reverse Current at Rated DC Blocking Voltage	5							μA	TA = 25 °C
		100								TA = 125 °C
t _{rr}	Typical Reverse Recovery Time	35							nS	I _F = 0.5A, I _R = 1.0A, I _{rr} = 0.25A
C _J	Typical Junction Capacitance	25							pf	Measured at 1.0 MHZ and Applied V _r = 4.0 volts.
R _{θ-JA}	Maximum Thermal Resistance	20							° C/W	Mounted on 0.2" x 0.2" (5mmx5mm) copper pad area

Note: Single phase half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Typical Characteristics Curves

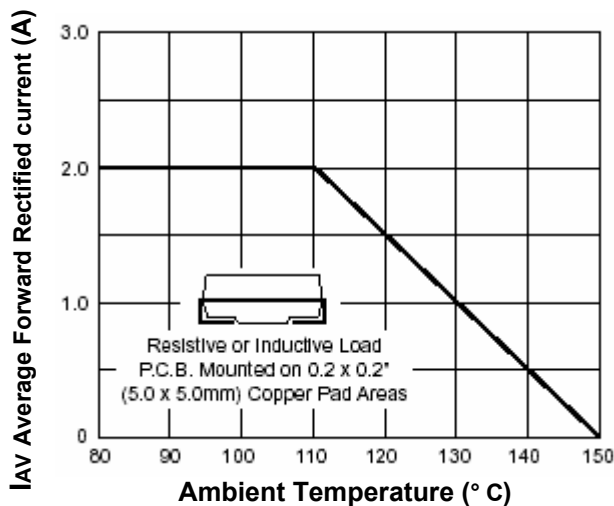


Fig.1- Forward Current Derating Curve

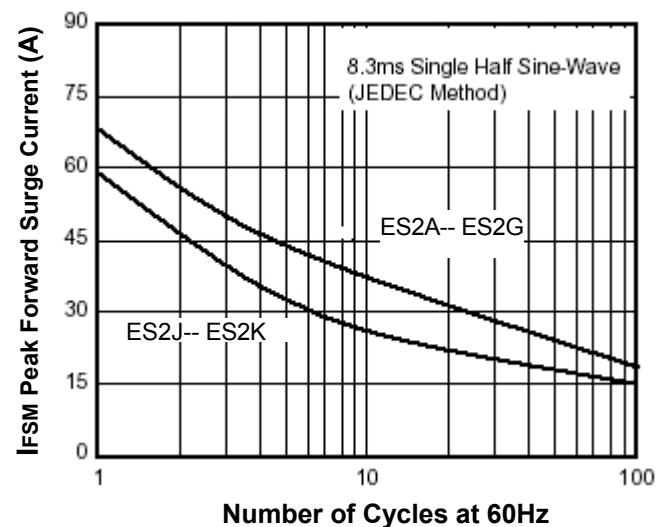
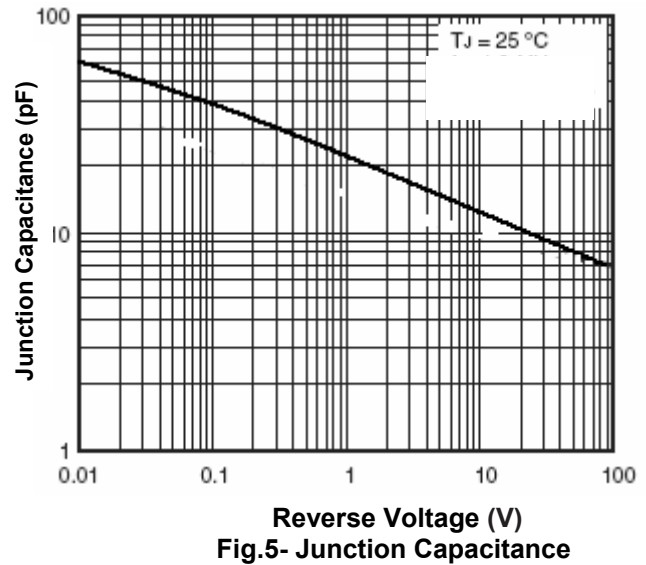
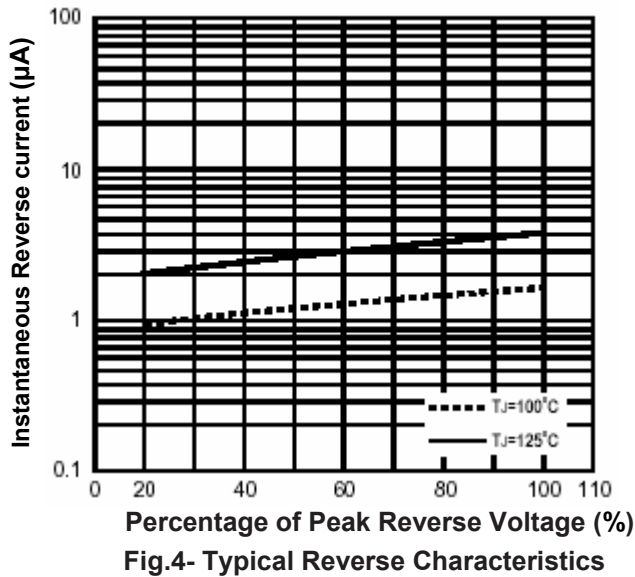


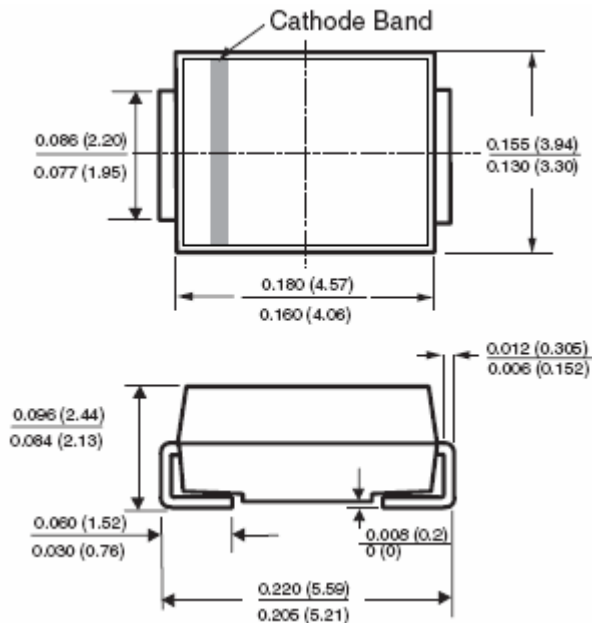
Fig.2- Max. Non-Repetitive Forward Surge Current

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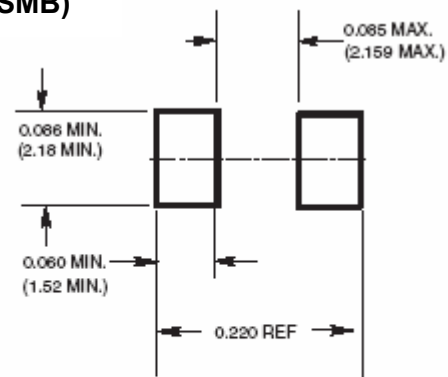
DS2A ~DS2K



Dimensions in inch (mm)



DO214AA (SMB)



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