

ES2A THRU ES2J

Surface Mount Superfast Recovery Rectifier

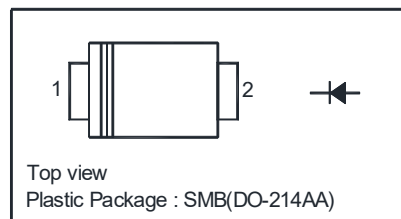
Reverse Voltage - 50 to 600 V
Forward Current - 2 A

Features

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Superfast reverse recovery time

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Mechanical Data

- **Case:** JEDEC SMB (DO-214AA) molded plastic body
- **Terminals:** Solderable per MIL-STD-750, Method 2026

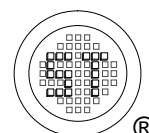
Absolute Maximum Ratings and Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

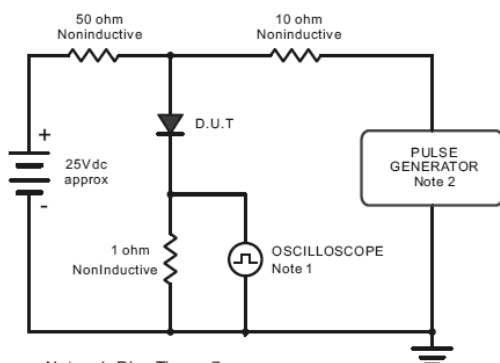
Parameter	Symbols	ES2A	ES2B	ES2C	ES2D	ES2E	ES2G	ES2J	Units
	Marking	ES2A	ES2B	ES2C	ES2D	ES2E	ES2G	ES2J	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	150	200	300	400	600	V
Maximum RMS Voltage	V _{RMS}	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current at T _C = 125 °C	I _{F(AV)}	2							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	60							A
Maximum Forward Voltage at 2 A	V _F	1				1.25		1.68	V
Maximum Reverse Current at T _a = 25°C at Rated DC Blocking Voltage at T _a = 125°C	I _R	5 100							µA
Typical Junction Capacitance at V _R = 4 V, f = 1 MHZ	C _j	40							pF
Maximum Reverse Recovery Time at I _F = 0.5 A, I _R = 1 A, I _{rr} = 0.25 A	t _{rr}	35							ns
Typical Thermal Resistance ¹⁾	R _{θJA} R _{θJC}	60 20							°C/W
Operating Junction and Storage Temperature Range	T _j , T _{stg}	- 55 to + 150							°C

¹⁾ P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.



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Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



Note: 1. Rise Time = 7ns, max.
Input Impedance = 1megohm, 22pF.
2. Rise Time = 10ns, max.
Source Impedance = 50 ohms.

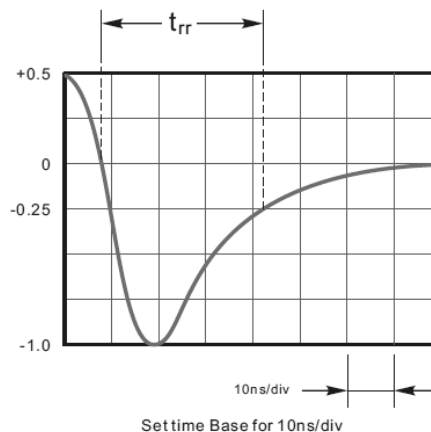


Fig.2 Maximum Average Forward Current Rating

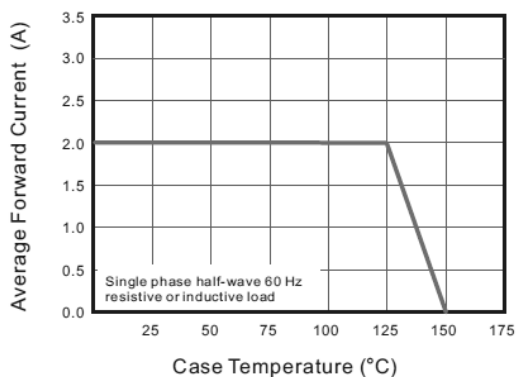


Fig.4 Typical Forward Characteristics

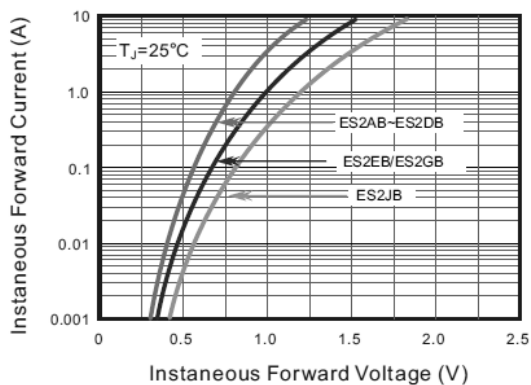


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current

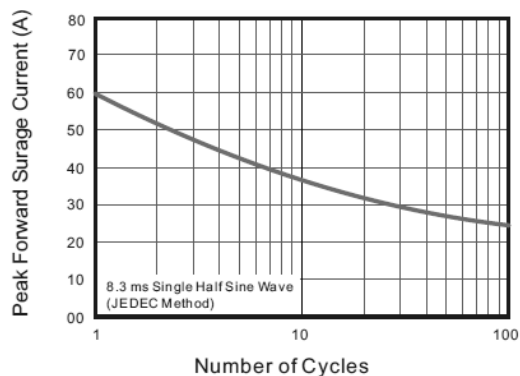


Fig.3 Typical Reverse Characteristics

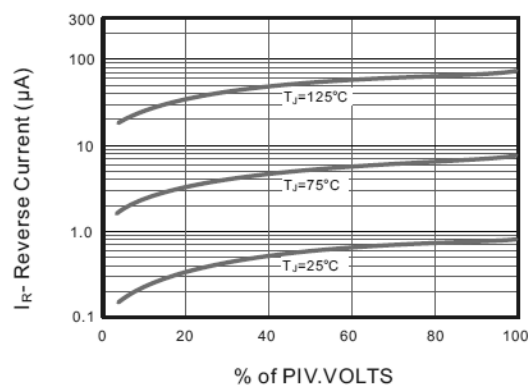
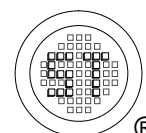
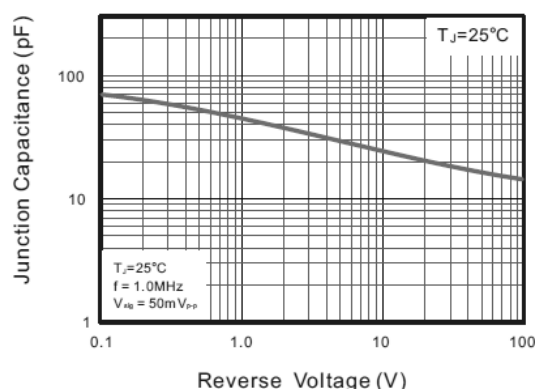


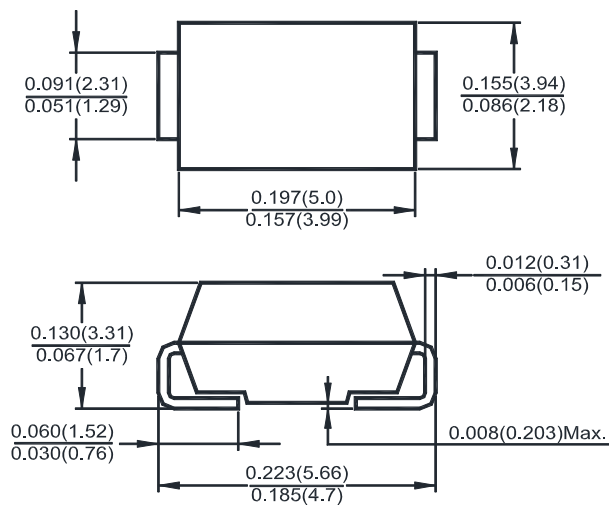
Fig.5 Typical Junction Capacitance



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Package Outline Dimensions in inches (millimeters)

SMB(DO-214AA)



Marking information

" XXXX " = Part No.

" III " = Cathode line

Font type: Arial

