

Effective Super Fast Recovery Diodes

ES2AB~ES2MB
50 to 1000V
2A
DO-214AA(SMB)

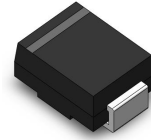
Features

- ◆ Low profile package
- ◆ plastic package has underwriters Laboratory 94V-0
- ◆ Ideal for surface mounted application
- ◆ Glass Passivated Junction chip
- ◆ Built-In strain relife design
- ◆ Fast efficient recover time for high efficient
- ◆ High temperature soldering: 250 °C /10 seconds at terminals
- ◆ Lead free

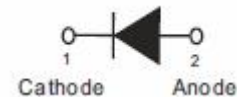
Mechanical Data

- ◆ Case: JEDEC DO-214AA molded plastic body
- ◆ Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- ◆ Polarity: Color band denotes cathode
- ◆ Weight : 0.091 grams

DO-214AA(SMB)



Functional Diagram



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, derate current by 20%.

Parameter	Symbol	ES2AB	ES2BB	ES2DB	ES2EB	ES2GB	ES2JB	ES2MB	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	300	400	600	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	210	280	420	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	300	400	600	1000	V
Maximum Average Forward Rectified Current at T _L =90℃	I _O	2.0							A
Peak Forward Surge Current: 8.3ms Single Half Sine Wave Superimposed on Rated Load	I _{FSM}	50							A
Maximum Forward Voltage at 2A	V _F	0.95			1.30		1.70	1.85	V
Maximum Reverse Current at 25℃	I _R	10							μA
Maximum Reverse Current at 100℃		200							
Maximum Reverse Recovery Time （Note1）	t _{rr}	35							ns
Operating and Storage Temperature Range	T _{OP} ,T _{STG}	-55 to +150							℃

NOTES:

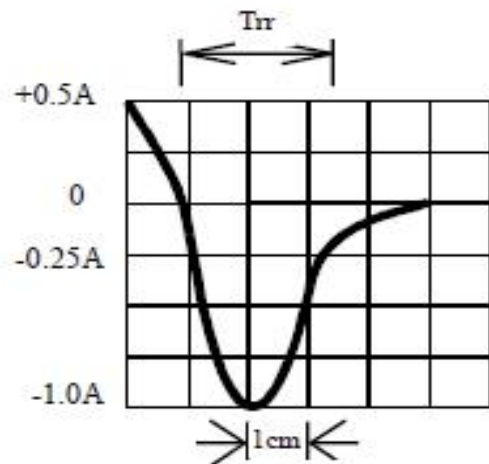
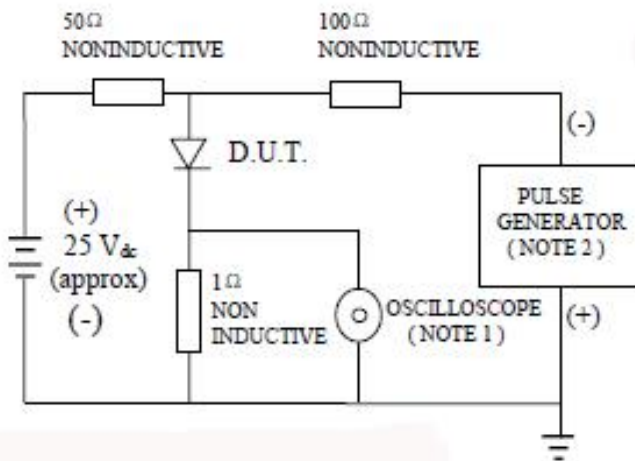
(1) Reverse recovery test condition : $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$

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Rating and Characteristic Curves

Fig1. 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 = 50hms.

Set time Base for 10/20ns/cm

Fig2. Typical Forward Current Derating Curve

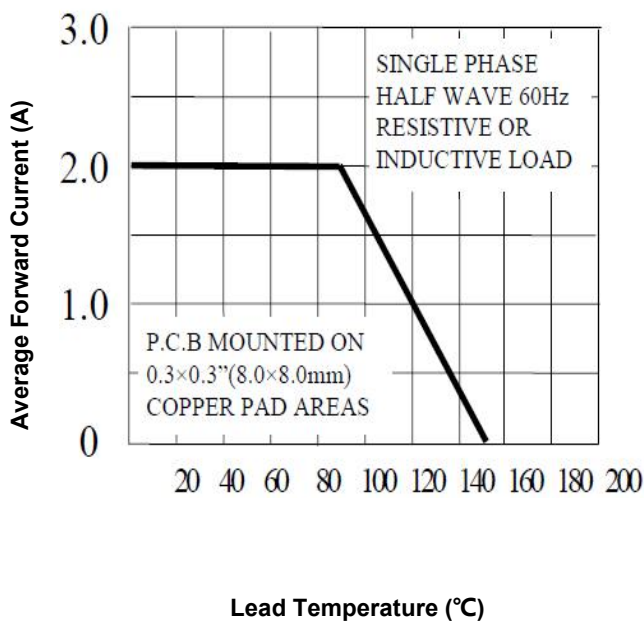
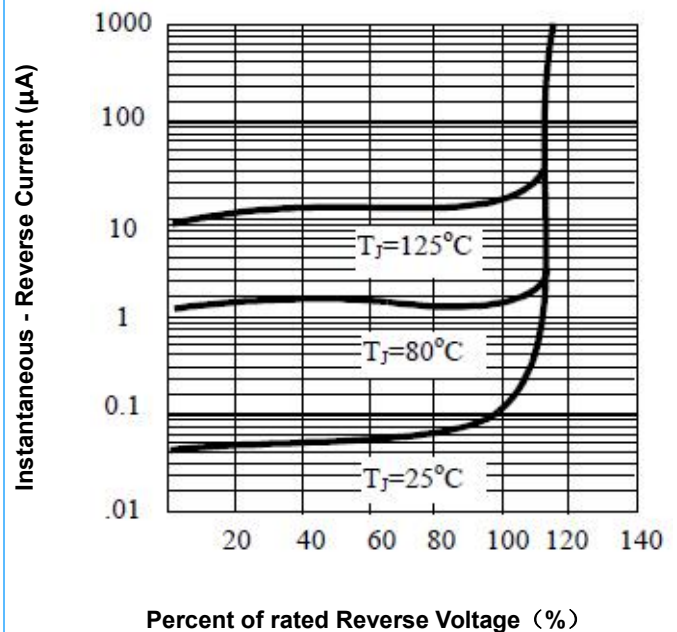


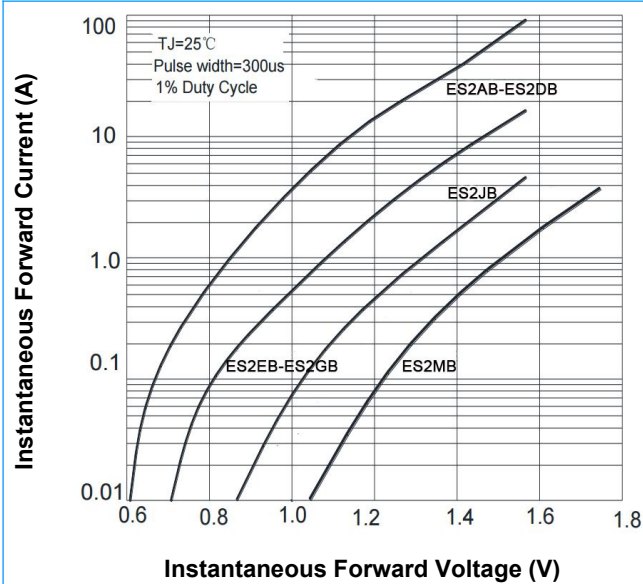
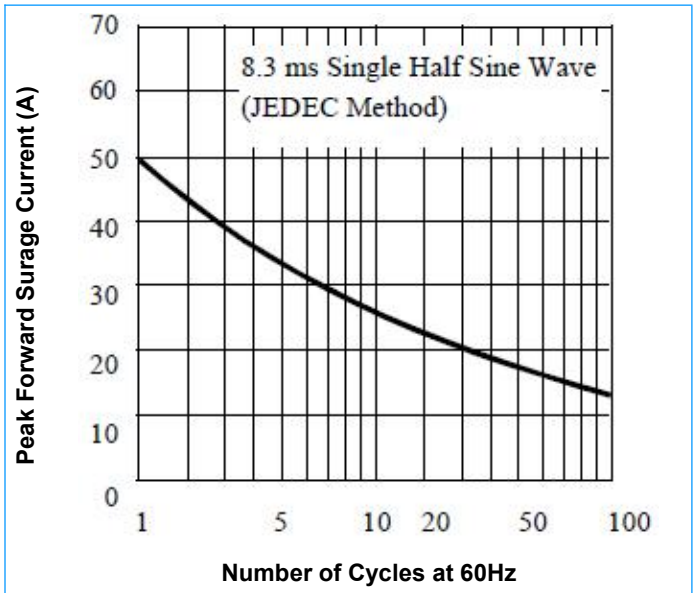
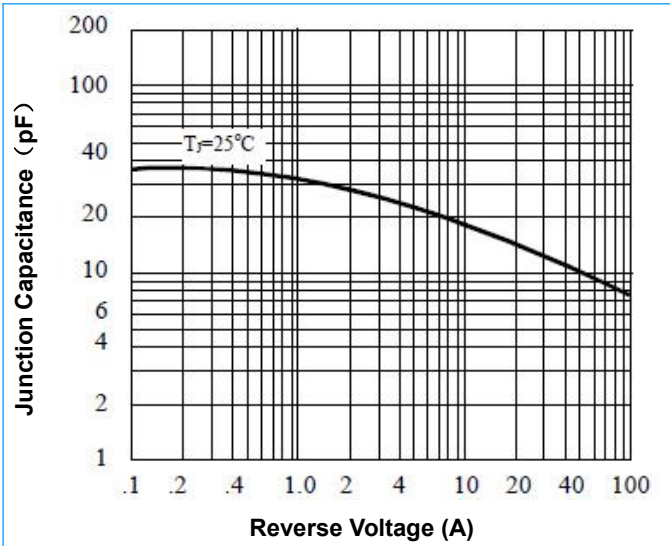
Fig3. Typical Reverse Characteristics



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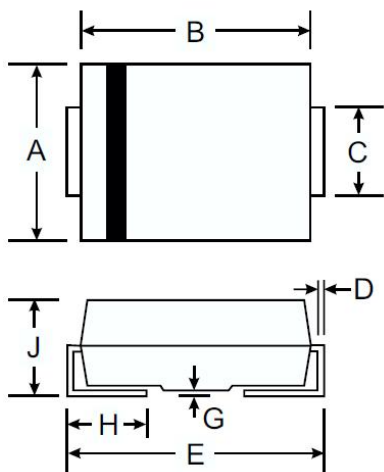
Rating and Characteristic Curves (Continue)

Fig4. Typical Instantaneous Forward Characteristics

Fig5. Maximum Non-Repetitive Forward Surge Current

Fig6. Typical Junction Capacitance


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DO-214AA(SMB) Package Outline



Symbol	SMB	
	min.	max.
A	3.30	3.94
B	4.06	4.57
C	1.85	2.2
D	0.152	0.305
E	4.95	5.55
G	0.00	0.203
H	0.76	1.52
J	2.10	2.5

Packaging Information

Part Number	Component Package	Quantity
ES2AB~ES2MB	DO-214AA (SMB)	3000 PCS