

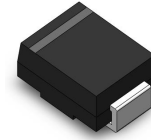
Effective Super Fast Recovery Diodes

ES3AB~ES3JB
50 to 600V
3A
DO-214AA(SMB)

Features

- ◆ For surface mounted applications
- ◆ Low profile package
- ◆ Glass Passivated Chip Junction
- ◆ Superfast reverse recovery time
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

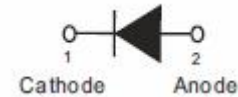
DO-214AA(SMB)



Mechanical Data

- ◆ Case : SMB.
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight : 0.1g / 0.003oz

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	ES3AB	ES3BB	ES3CB	ES3DB	ES3EB	ES3GB	ES3JB	Unit
Maximum Repetitive 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 =100℃		I _{F(AV)}	3							A
Peak Forward Surge Current: 8.3ms Single Half Sine Wave Superimposed on Rated Load		I _{FSM}	90							A
Maximum Forward Voltage at 3A		V _F	1				1.3		1.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _C =25℃	I _R	10							μA
	T _C =125℃		200							
Maximum Reverse Recovery Time ⁽¹⁾		t _{rr}	35							ns
Typical Thermal Resistance ⁽²⁾		R _{θJA} R _{θJC}	50 16							℃/W
Operating and Storage Temperature Range		T _J , T _{STG}	-55 to +150							℃

NOTES:

(1) Measured with $I_F = 0.5 A$, $I_R = 1 A$, $I_{rr} = 0.25 A$.

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

Effective Super Fast Recovery Diodes

ES3AB~ES3JB
50 to 600V
3A
DO-214AA(SMB)

Rating and Characteristic Curves

Fig1. Reverse Recovery Time Characteristic And Test Circuit Diagram

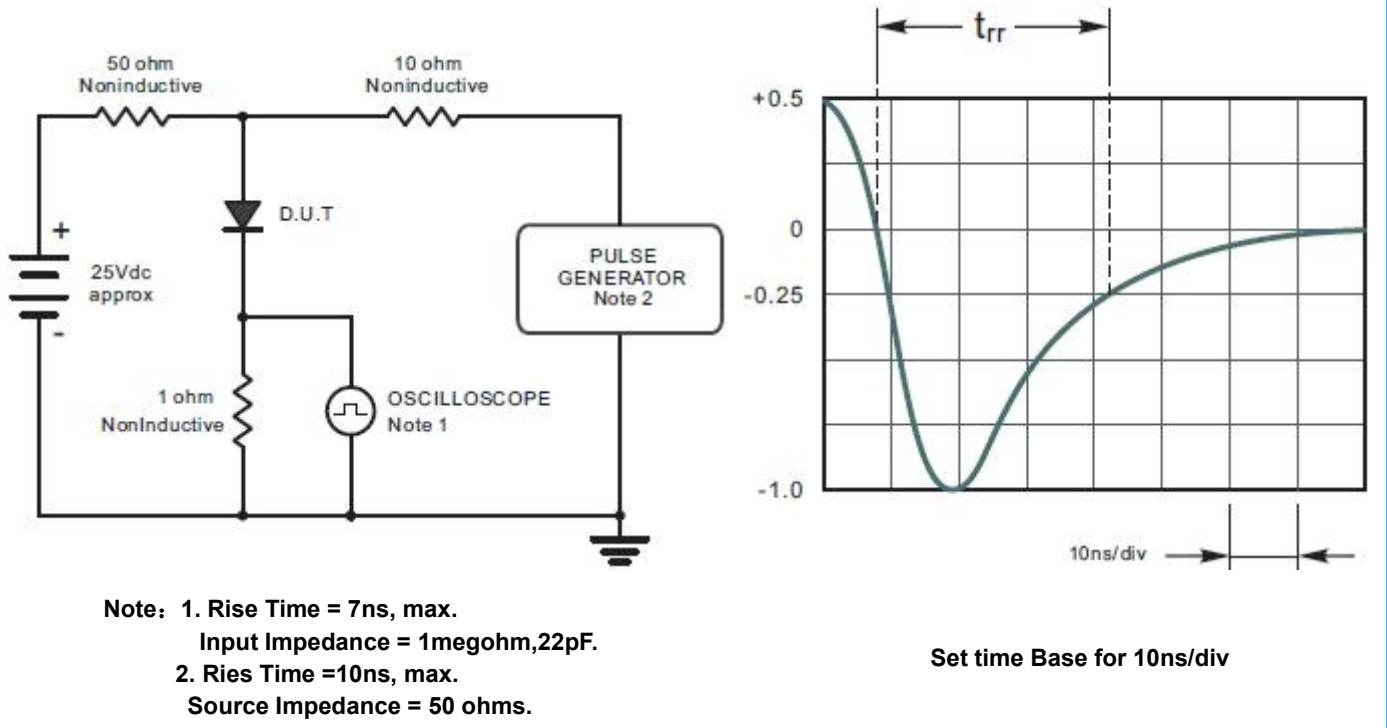


Fig2. Maximum Average Forward Current Rating

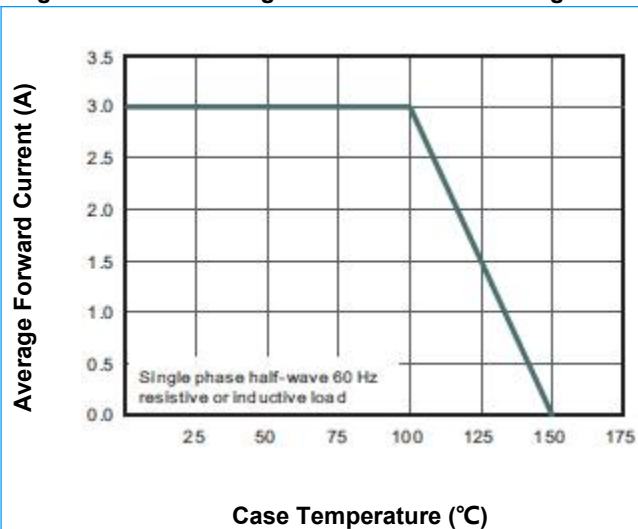
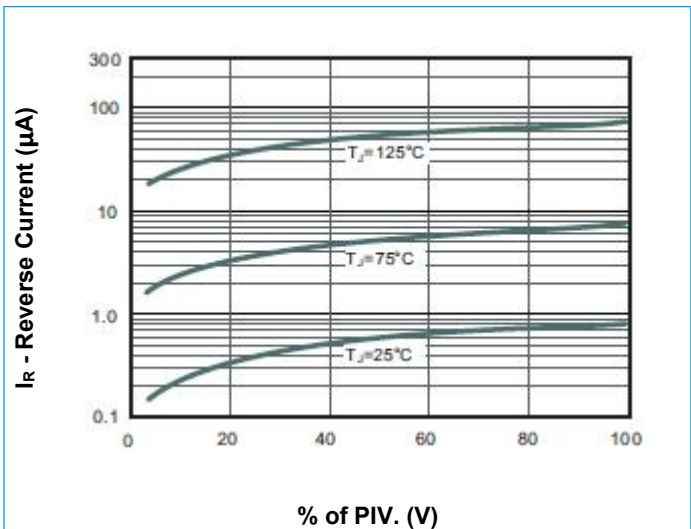


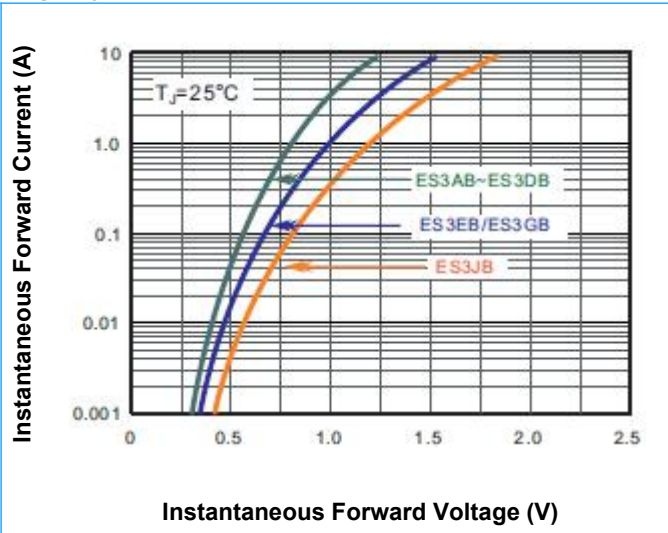
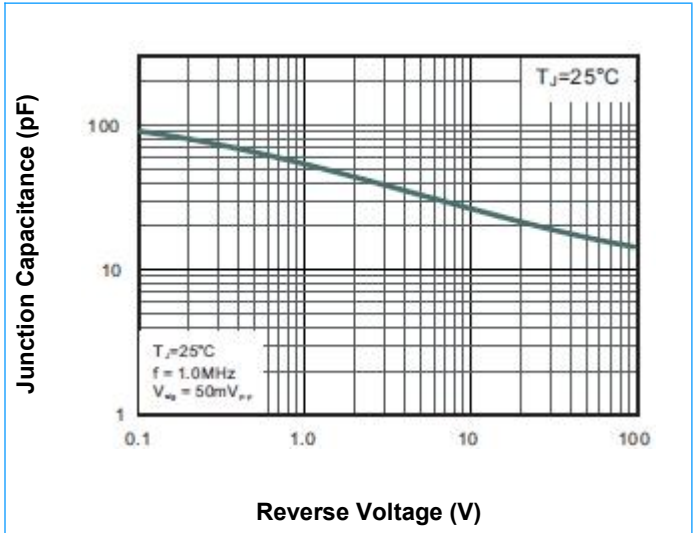
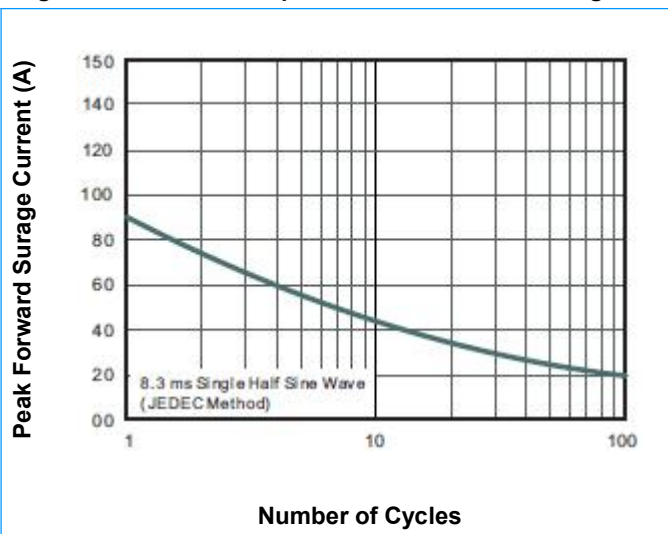
Fig3. Typical Reverse Characteristics



Effective Super Fast Recovery Diodes

ES3AB~ES3JB
50 to 600V
3A
DO-214AA(SMB)

Rating and Characteristic Curves (Continue)

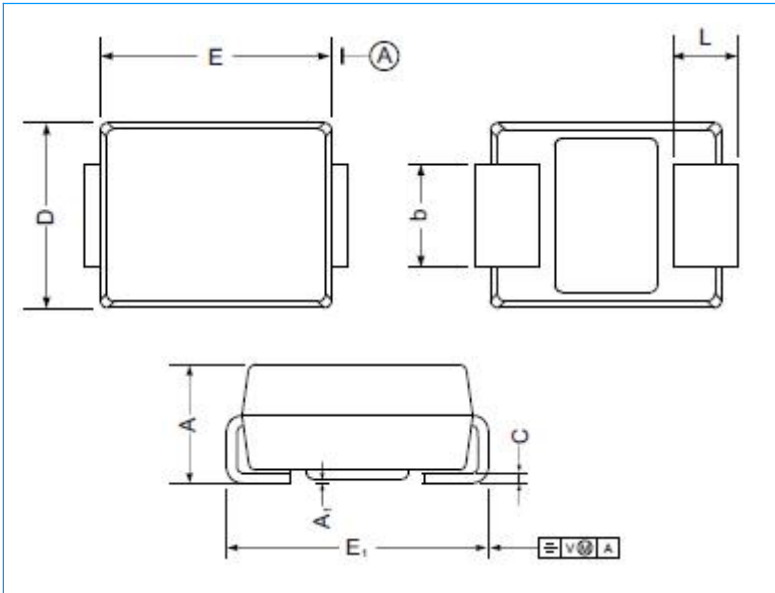
Fig4. Typical Forward Characteristics

Fig5. Typical Junction Capacitance

Fig6. Maximum Non-Repetitive Peak Forward Surge Current


Effective Super Fast Recovery Diodes

ES3AB~ES3JB
50 to 600V
3A
DO-214AA(SMB)

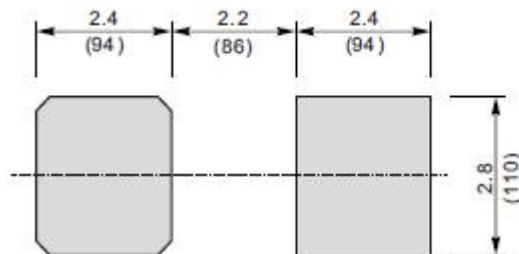
DO-214AA(SMB) Package Outline

Plastic surface mounted package; 2 leads



Symbol	mm		mil	
	min.	max.	min.	max.
A	2.10	2.50	83	98
E	4.06	4.70	160	185
D	3.30	3.94	130	155
E₁	4.95	5.55	195	219
A₁	0.05	0.20	2	8
L	0.80	1.50	31	60
C	0.152	0.305	6	12
b	1.90	2.20	75	87

The Recommended Mounting Pad Size



Unit : $\frac{\text{mm}}{(\text{mil})}$

Marking

Part Number	ES3AB	ES3BB	ES3CB	ES3DB	ES3EB	ES3GB	ES3JB
Marking	ES3A	ES3B	ES3C	ES3D	ES3E	ES3G	ES3J

Packaging Information

Part Number	Component Package	Quantity
ES3AB~ES3JB	DO-214AA (SMB)	3000 PCS