Zibo Seno Electronic Engineering Co., Ltd.

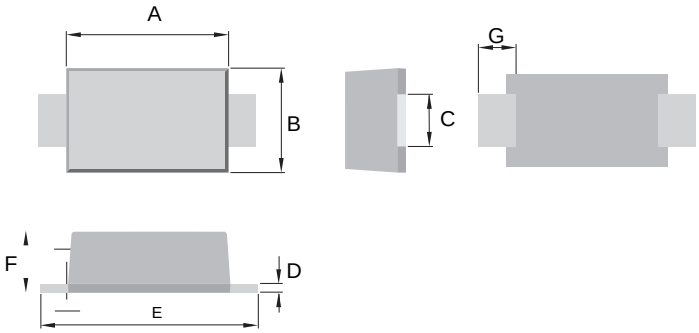
淄博圣诺

ES3AF – ES3JF

3.0A SURFACE MOUNT GLASS PASSIVATED SUPERFAST DIODE

Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop, High Efficiency
- Surge Overload Rating to 1 0 0A Peak
- Low Power Loss
- Super-Fast Recovery Time
- Plastic Case Material has UL Flammability Classification Rating 94V-O



Mechanical Data

- Case: SMAF, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.037 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version**

SMAF		
Dim	**Min**	**Max**
A	3.20	3.60
B	2.40	2.80
C	1.38	1.43
D	0.10	0.20
E	4.40	4.80
F	0.90	1.10
G	0.90	-
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

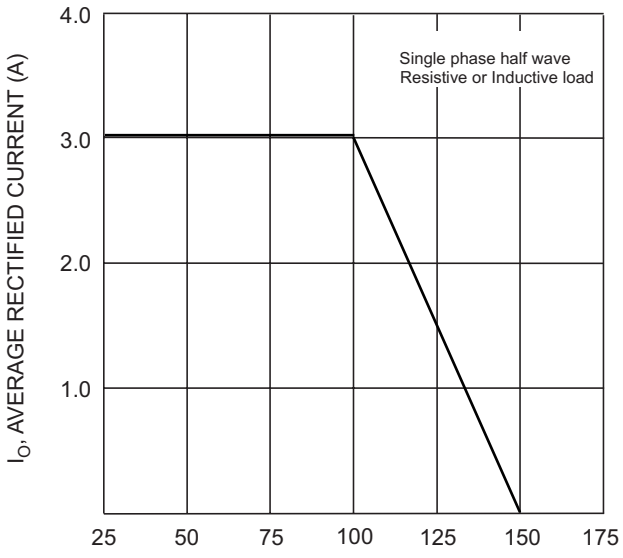
Characteristic	Symbol	ES3AF	ES3BF	ES3CF	ES3DF	ES3EF	ES3GF	ES3JF	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	150	200	300	400	600	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	105	140	210	280	420	V
Average Rectified Output Current @T_L = 100°C	I_O	3.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100							A
Forward Voltage @I_F = 3.0A	V_{FM}	0.95				1.25		1.7	V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	5.0 100							µA
Reverse Recovery Time (Note 1)	t_{rr}	35							nS
Typical Junction Capacitance (Note 2)	C_j	45							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JL}$	60							°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150							°C

Note: 1. Measured with I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A. See figure 5.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.
3. Mounted on P.C. Board with 8.0mm^2 land area.

Downloaded from alldatasheet.com Alldatasheet

淄博圣诺

ES3AF – ES3JF



Fi . 1 Forward Current Deratin Curve

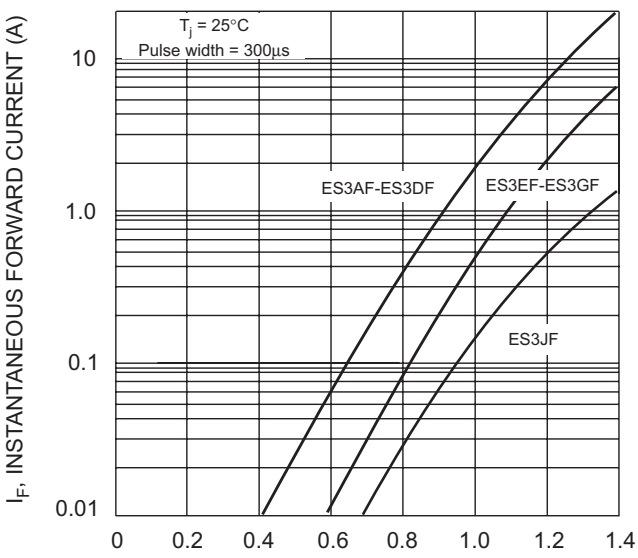


Fig. 2 Typical Forward Characteristics

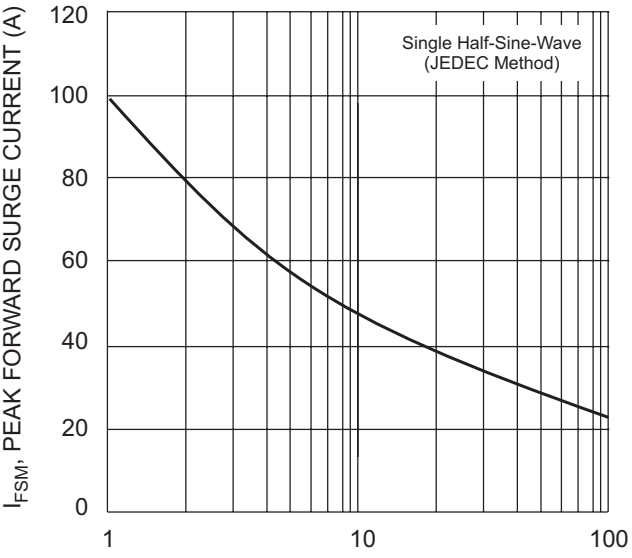


Fig. 3 Surge Current Derating Curve

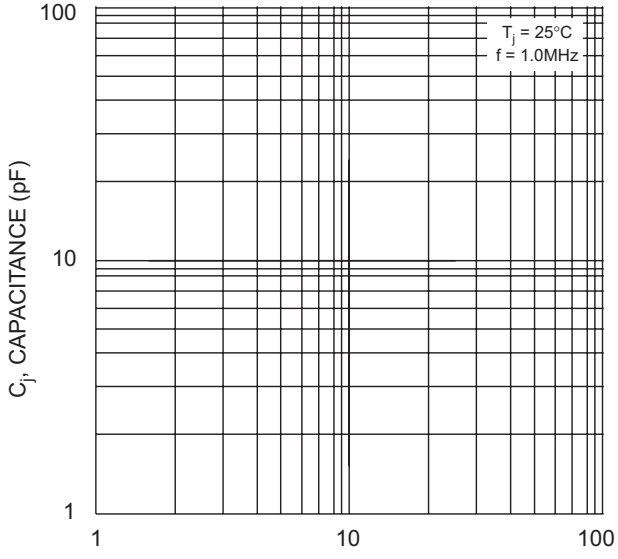
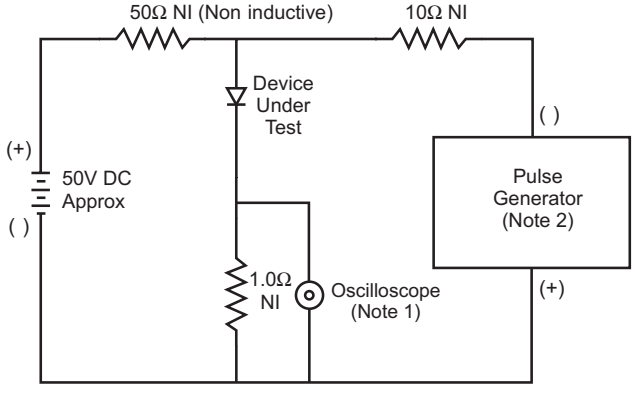


Fig. 4 Typical Junction Capacitance



Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
2. Rise Time = 10ns max. Input Impedance = 50Ω.

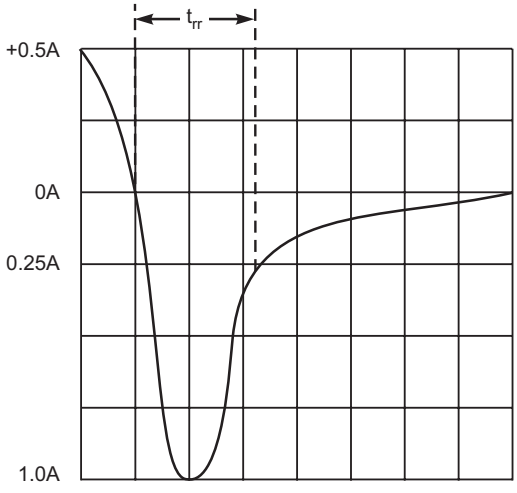


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

Downloaded from alldatasheet.com Alldatasheet