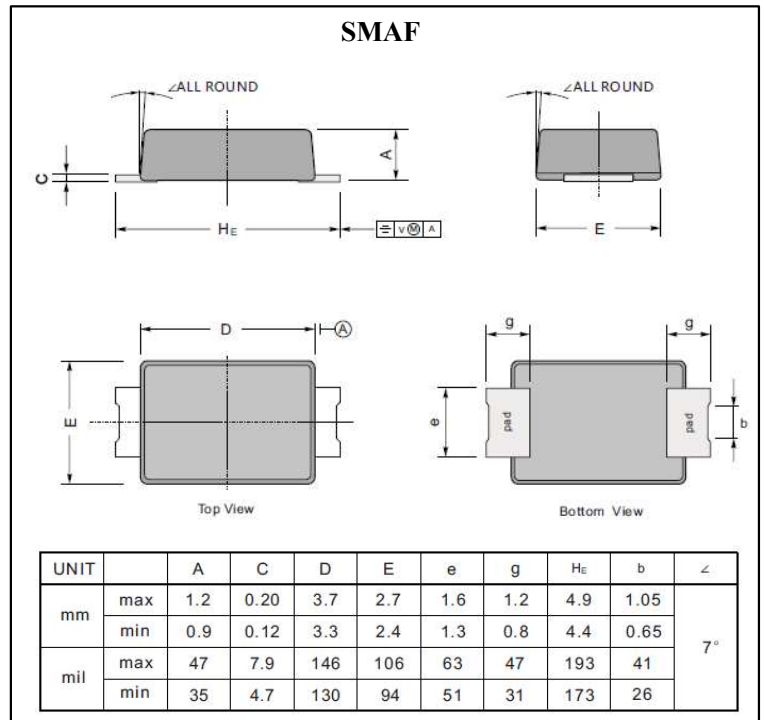
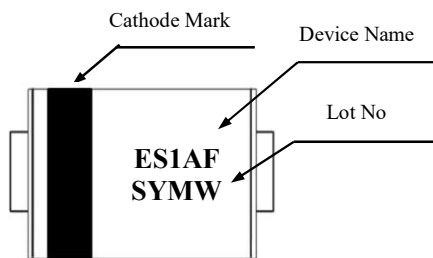


Surface Mount Superfast Recovery Rectifiers
Reverse Voltage 50 to 600 Volts Forward Current 1.0 Ampere
Features

- For surface mounted application
- Glass passivated junction chip
- Superfast reverse recovery time
- Low forward voltage drop
- High current capability
- High surge current capability

Mechanical Data

- Case : Molded plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Weight : 0.027 gram

Marking

Maximum Ratings & Electrical 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	ES1AF	ES1BF	ES1CF	ES1DF	ES1FF	ES1GF	ES1HF	ES1JF	Unit	Remark
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	150	200	300	400	500	600	V	
Maximum RMS Voltage	V _{RMS}	35	70	105	140	210	280	350	420	V	
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	500	600	V	
Maximum Average Forward Rectified Current	I _{F(AV)}	1.0								A	
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	30								A	
Maximum Instantaneous Forward Voltage @ 1.0A	V _F	0.95			1.3		1.7			V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	5.0								uA	T _a =25°C
		100								uA	T _a =100°C
Maximum Reverse Recovery Time	t _{rr}	35								us	Note 1
Typical Junction Capacitance	C _J	10			8					pF	Note 2
Typical Thermal Resistance	R _{th(j-a)}	85								°C/W	Note 3
	R _{th(j-l)}	35								°C/W	
Operation Junction and Storage Temperature Range	T _J , T _{STG}	-55 to +150								°C	

Note 1. Reverse Recovery Time Test Conditions : I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

Note 2. Measured at 1MHz and Applied Reverse Voltage of 4.0Volts D.C.

Note 3. Measured on P.C.Board with 0.2" × 0.2" (5mm×5mm) Copper Pad Area.



Ratings and Characteristics Curves (Ta=25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

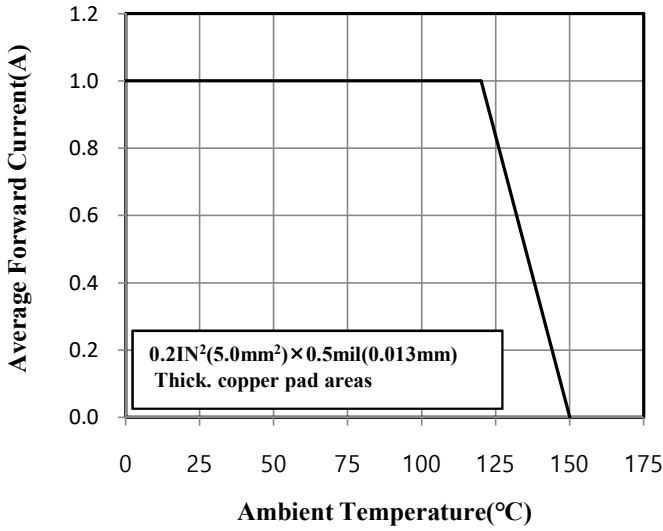


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

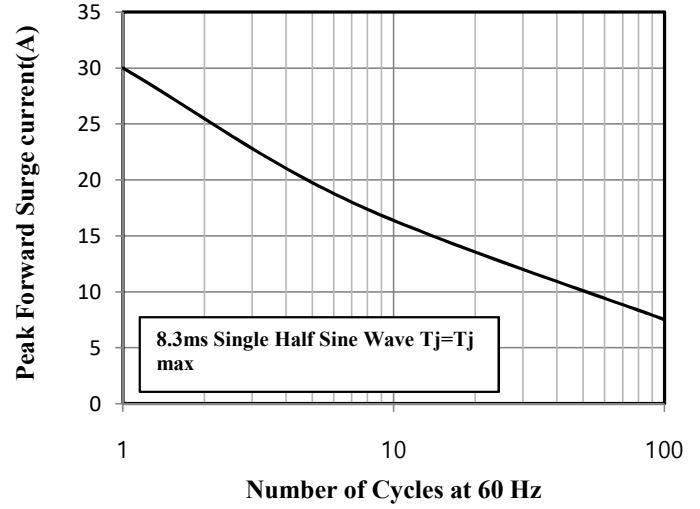


Fig.3 Typical Instantaneous Forward Characteristics

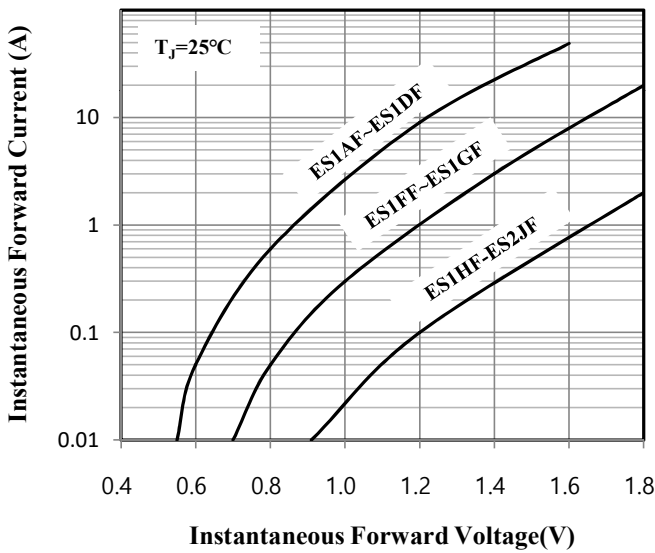


Fig.4 Typical Junction Capacitance

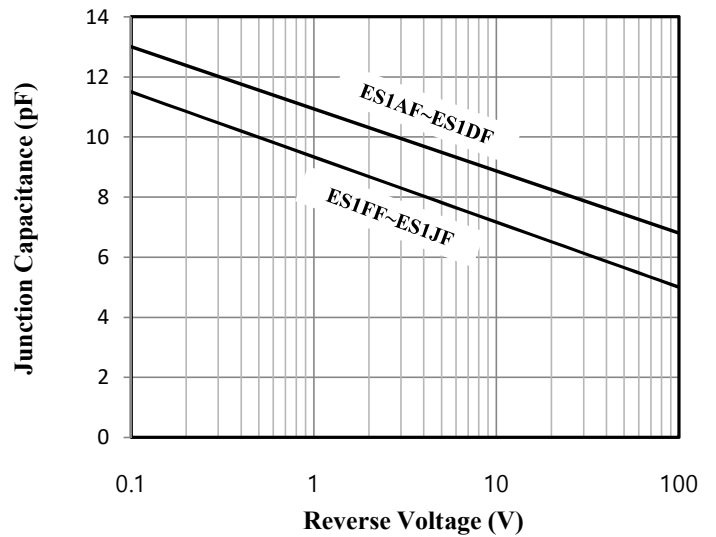


Fig.5 Typical Reverse Characteristics

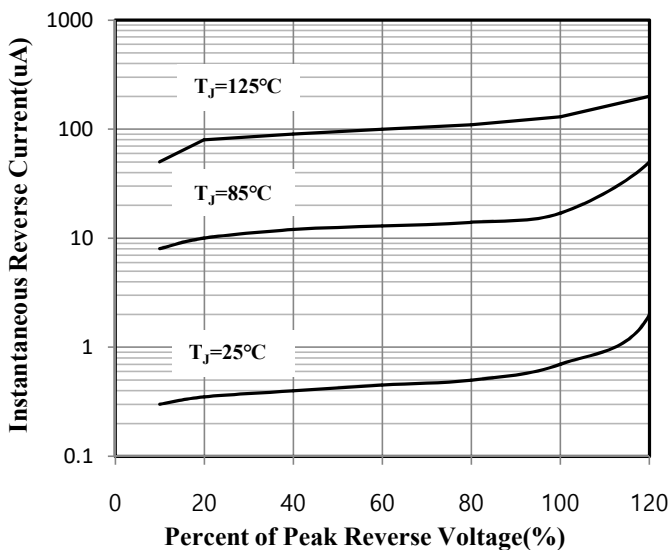


Fig. 6 Reverse Recovery Time Characteristic and Test Circuit Diagram

