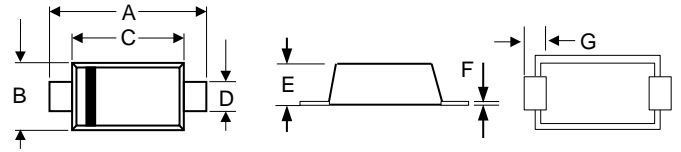


### Features

- \* For surface mounted application
- \* Low Profile Package
- \* Glass Passivated Chip Junction
- \* High Temp Soldering: 260°C for 10seconds at Terminals
- \* Superfast Recovery Times



**RoHS**  
COMPLIANT



DIM.	SMAF			
	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.173	0.193	4.40	4.90
B	0.094	0.106	2.40	2.70
C	0.130	0.146	3.30	3.70
D	0.051	0.063	1.30	1.60
E	0.035	0.043	0.90	1.10
F	0.005	0.008	0.12	0.20
G	0.031	0.047	0.80	1.20

### Mechanical Data

- \* Case: SMAF Molded plastic
- \* Terminals: Solderable per MIL-STD-750, Method 2026
- \* Polarity: Indicated by cathode band

### Maximum Ratings and Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

Type Number	Symbols	ES1AF	ES1BF	ES1CF	ES1DF	ES1GF	ES1JF	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	150	200	400	600	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	105	140	280	420	V
Maximum D.C Blocking Voltage	V <sub>DC</sub>	50	100	150	200	400	600	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	1						A
Peak Forward Surge Current, 8.3ms single half sine-wave	I <sub>FSM</sub>	30						A
Maximum Instantaneous Forward Voltage at 1.0A	V <sub>F</sub>	1.0				1.25	1.7	V
Maximum D.C Reverse Current @ T <sub>J</sub> =25°C at Rated D.C Blocking Voltage @ T <sub>J</sub> =125°C	I <sub>R</sub>	5 100						μA
Maximum Reverse Recovery Time (Note1)	T <sub>rr</sub>	35						nS
Typical Junction Capacitance(Note2)	C <sub>J</sub>	15						pF
Typical thermal resistance (Note3)	R <sub>θJA</sub>	80						°C/W
Operating and Storage Temperature Range	T <sub>J</sub> / T <sub>STG</sub>	-55 to +150						°C

Note 1: Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A

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

Note 3: P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

### Ratings and Characteristic Curves

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram

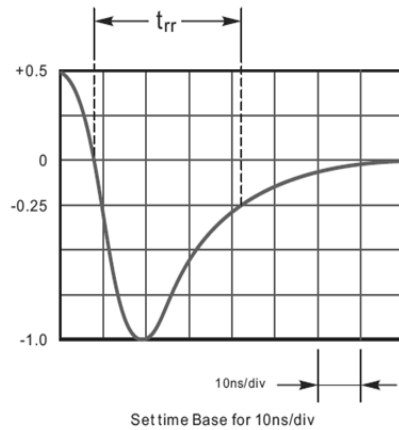
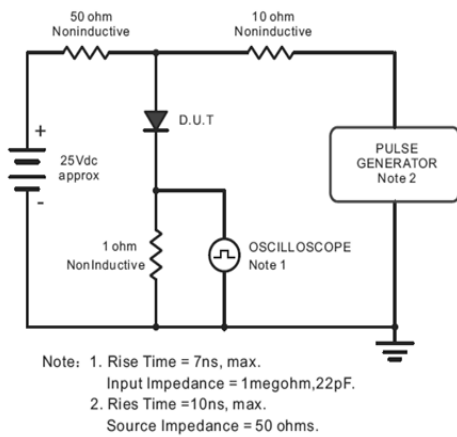


Fig.2 Maximum Average Forward Current Rating

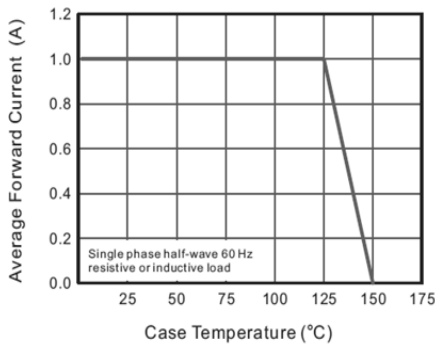


Fig.3 Typical Reverse Characteristics

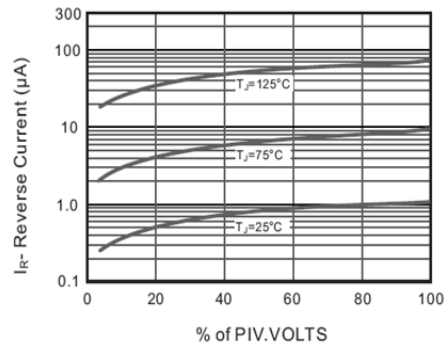


Fig.4 Typical Forward Characteristics

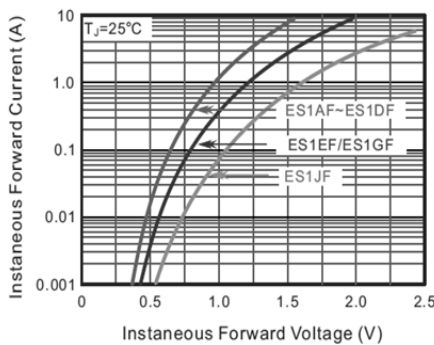


Fig.5 Typical Junction Capacitance

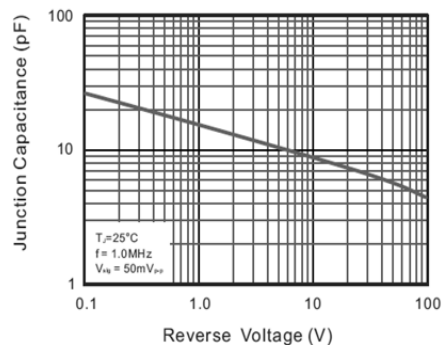
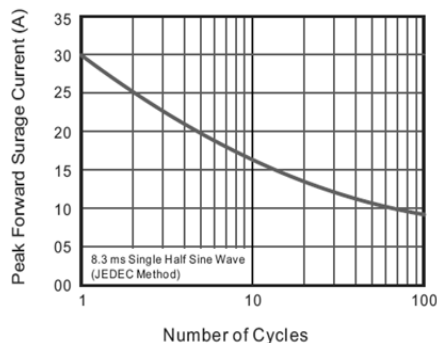


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current





# ES1AF THRU ES1JF

1.0 Amp. Surface Mount Glass Passivated Super Fast Rectifiers

## Ordering Information

Part No.	Package	Packing Code	Packing
ES1AF THRU ES1JF	SMAF	R30	3000pcs/Reel

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