Surface Mount Super Fast Recovery Rectifier

Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- High forward surge capability
- Super Fast reverse recovery time
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Typical Applications

For use in high frequency rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, and telecommunication.

Mechanical Data

- **Package**: SMAF
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

■**Maximum Ratings** (T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	E2AF	E2BF	E2CF	E2DF	E2FF	

■Electrical Characteristics T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	E2AF	E2BF	E2CF	E2DF	E2FF	E2GF	E2HF	E2JF	E2KF
Maximum instantaneous forward voltage	V_F	V	I_{FM}=2.0A	1.0				1.3		1.7		1.85
Maximum reverse recovery time	t_{rr}	ns	I_F=0.5A,I_R=1.0A, I_{rr}=0.25A	35								
Maximum DC reverse current at rated DC blocking voltage	I_R	μA	T_j=25	5.0								
			T_j=125	100								
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	30				16		12		12

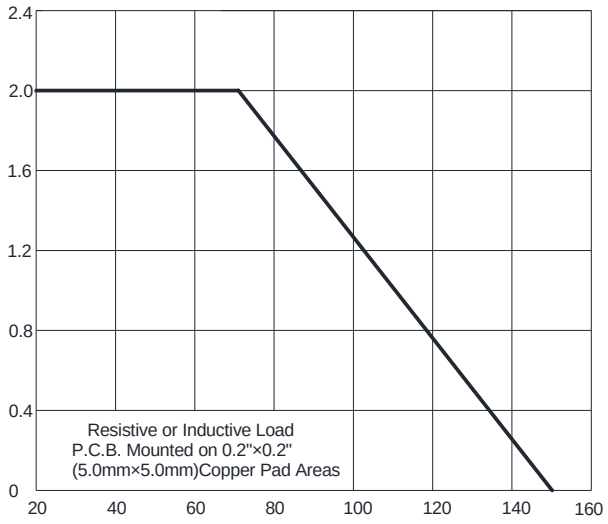
■Thermal Characteristics T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	E2AF	E2BF	E2CF	E2DF	E2FF	E2GF	E2HF	E2JF
Typical Thermal resistance	$R_{\theta J-A}$ (1)	/W	75							
	$R_{\theta J-L}$ (1)		25							
	$R_{\theta J-C}$ (1)		20							

Note:
(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

■ Characteristics (Typical)

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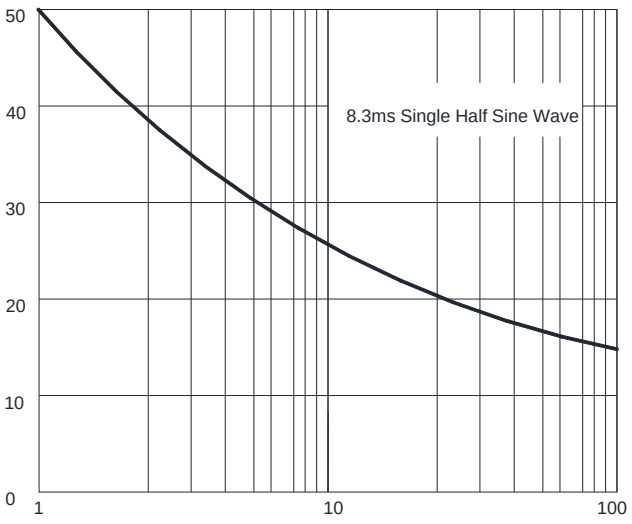


FIG3: Typical Forward Voltage

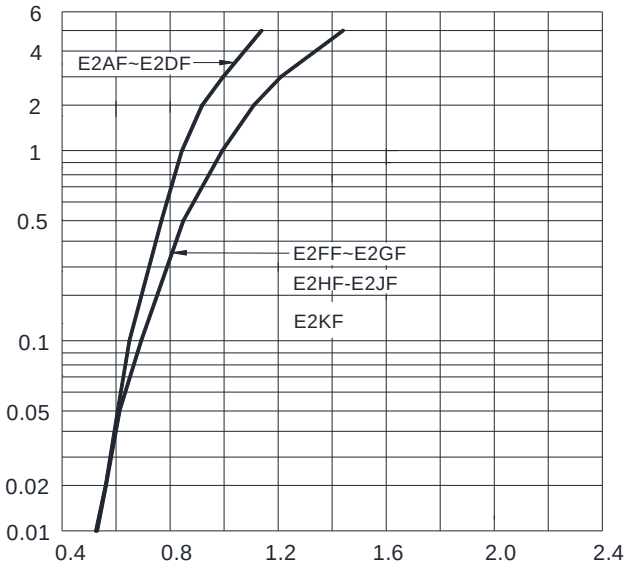
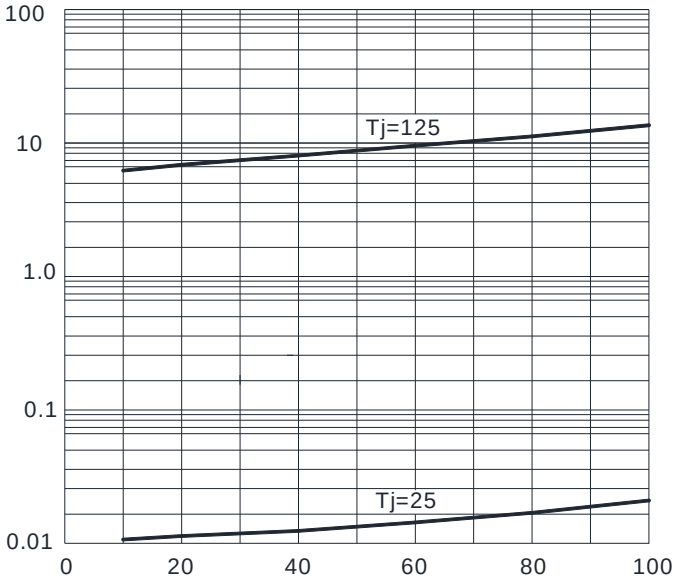


FIG4:Typical Reverse Characteristics

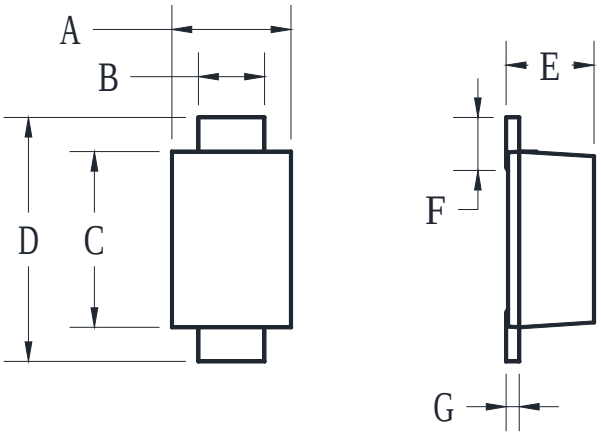


■**Ordering Information** (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
E2AF-E2KF	F1	Approximate 0.034	3000	24000	96000	7” reel
E2AF-E2KF	F2	Approximate 0.034	10000	/	160000	13” reel
E2AF-E2KF	F3	Approximate 0.034	10000	/	120000	13” reel
E2AF-E2KF	F4	Approximate 0.034	7500	/	120000	13” reel

■ Outline Dimensions

SMAF



Dimensions in millimeters

SMAF		
Dim	Min	Max
A	2.40	2.80
B	1.35	1.45
C	3.40	3.60
D	4.40	4.80
E	1.05	1.25
F	0.50	1.00
G	0.15	0.22

■ Suggested pad layout

SMAF	
Dim	Millimeters
P1	6.50
P2	4.00
P3	1.50
Q1	2.50
Q2	1.70