

/ Descriptions

50V ~ 600V 1.0A SMAF

Surface Mount Superfast Recovery Rectifier, Reverse Voltage:50 to600V, Forward Current:1.0A, SMAF thin package.

/ Features

RoHS 2011/65/EU

Features: Glass Passivated Chip Junction Fast reverse recovery time Lead free in comply with EU ROHS 2011/65/EU directives For surface mounted applications.Halogen free product.

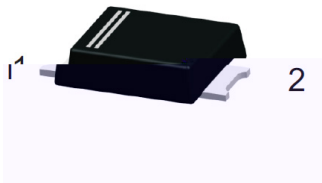
/ Applications

General purpose.

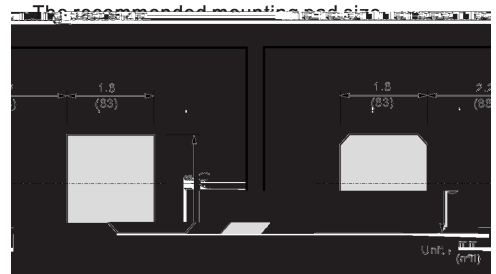
/ Equivalent Circuit



/ Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode



/ Marking

See Marking Instructions

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating							Unit
		ES1AF	ES1BF	ES1CF	ES1DF	ES1EF	ES1GF	ES1JF	
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 $T_L=100$	$I_{F AV}$	1.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30							A
Typical Junction Capacitance at $V_R=4V, f=1MHz$	C_j	10							pF
Typical Thermal Resistance ¹	R_{JA}	115							/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55~+150							

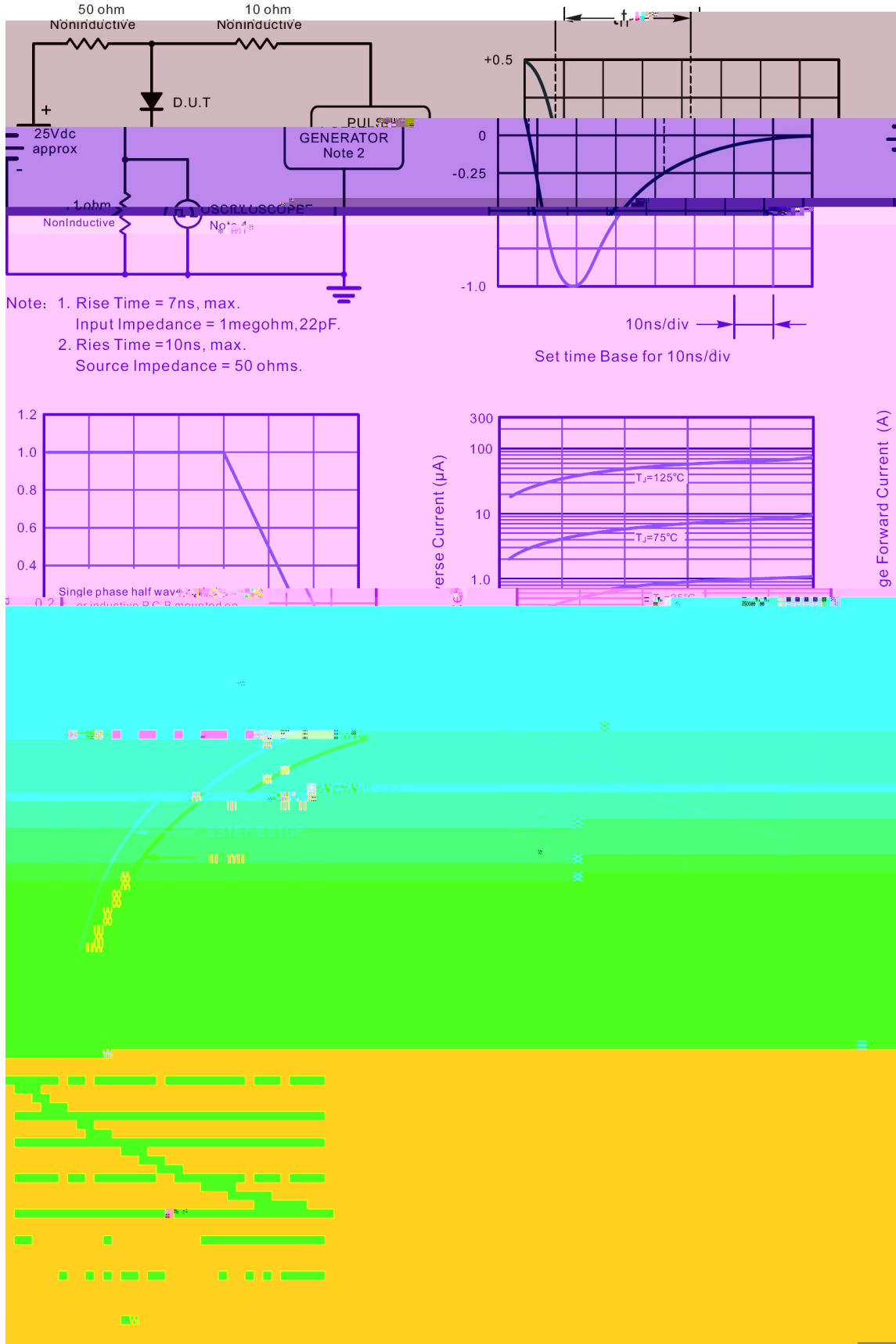
Note:

1 P.C.B. mounted with 0.2X0.2"(5X5 mm) copper pad areas.

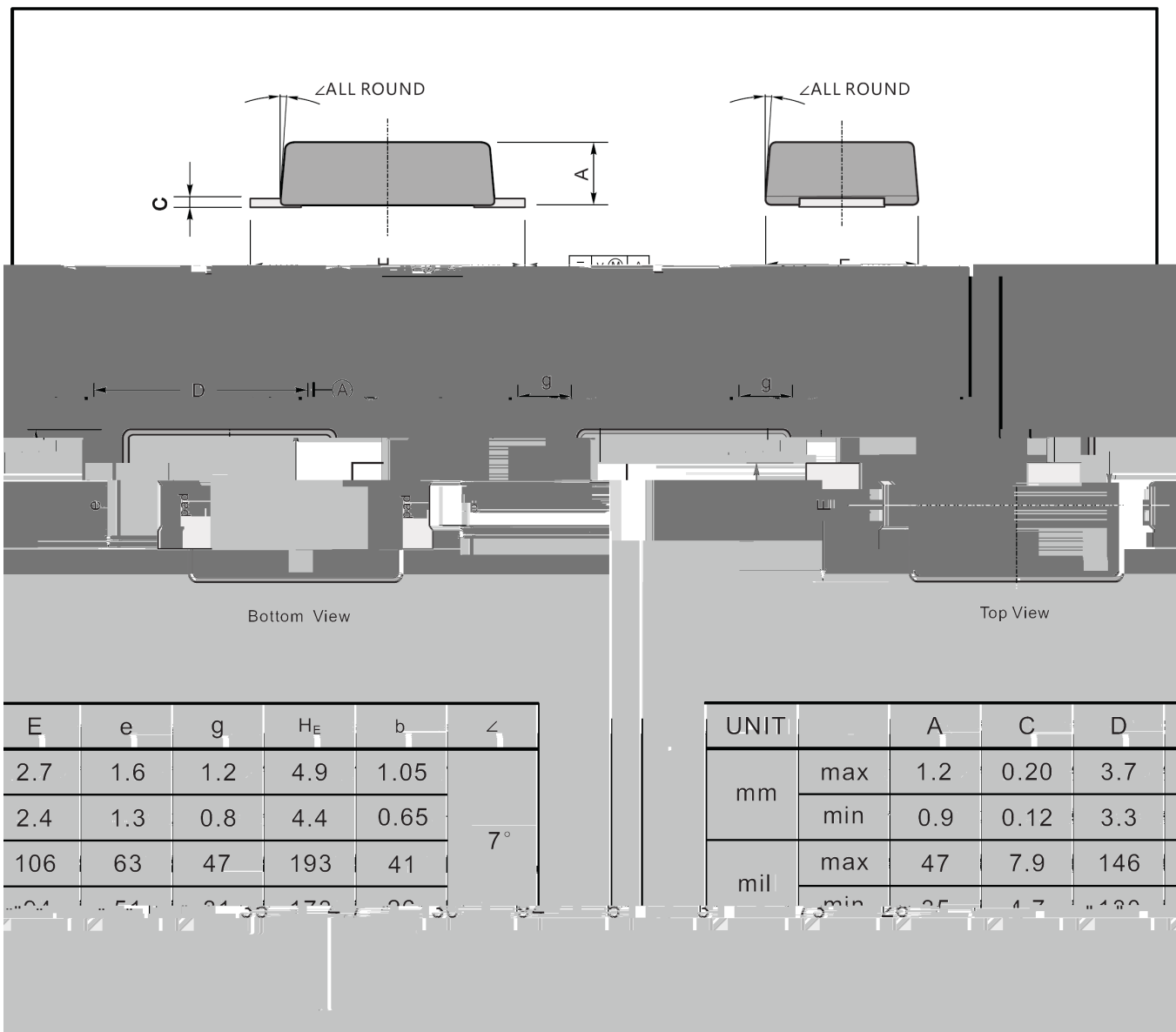
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Rating						Unit
			ES1AF	ES1BF	ES1CF	ES1DF	ES1EF	ES1GF	
Maximum Forward Voltage	V_F	$I_F=1.0A$	1.0			1.25		1.65	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_a=25$	5.0						μA
		$T_a=125$	100						μA
Maximum Reverse Recovery Time	t_{rr}	$I_F=0.5A$ $I_R=1.0A$ $I_{rr}=0.25A$	35						ns

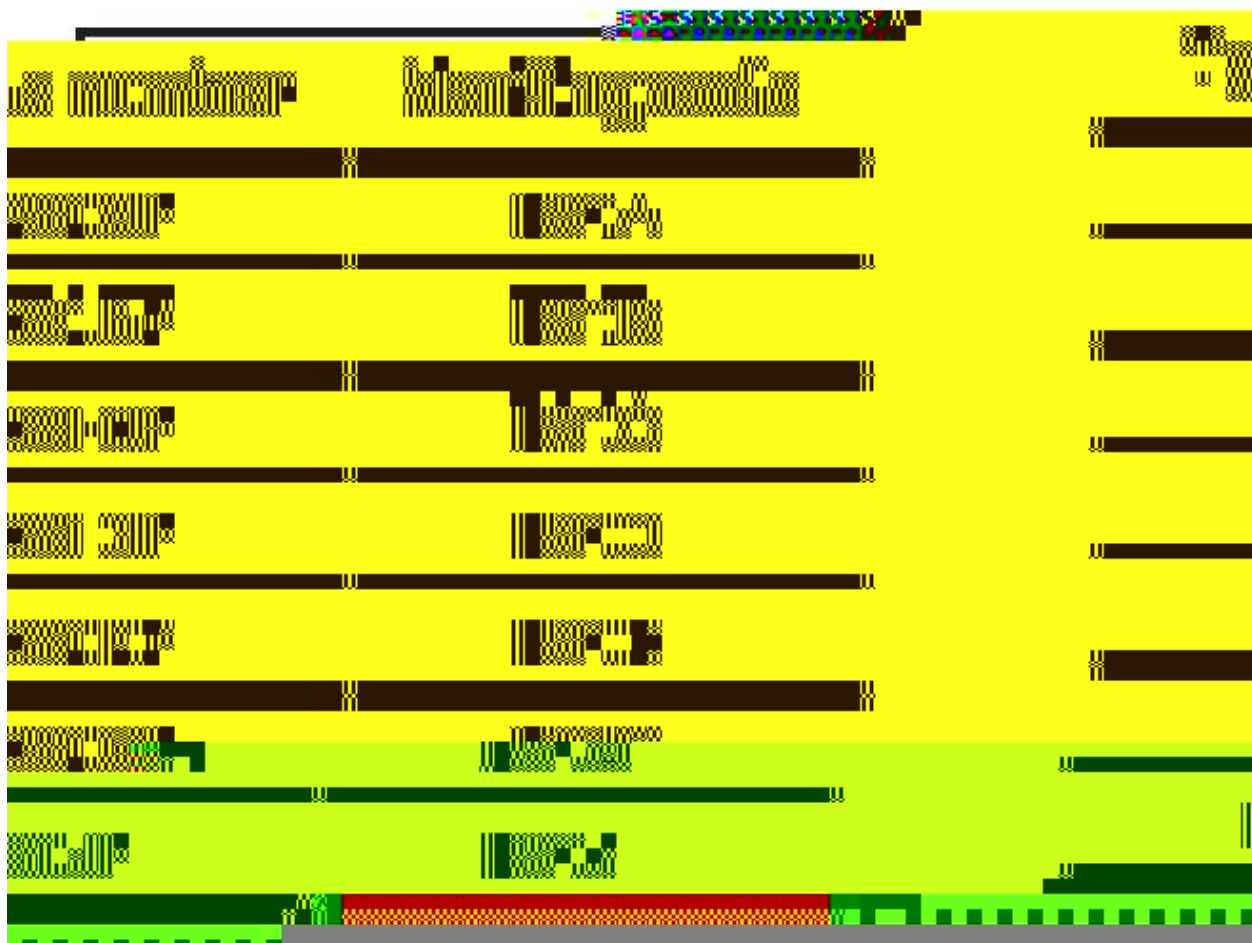
/ Electrical Characteristic Curve



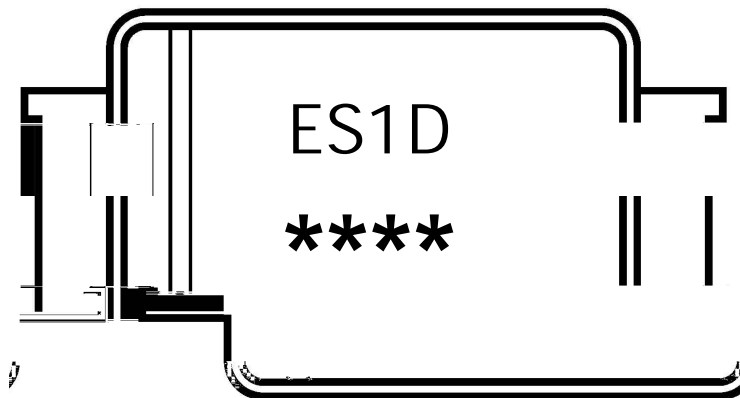
/ Package Dimensions



Marking



/ Marking Instructions



ES1D

1 *

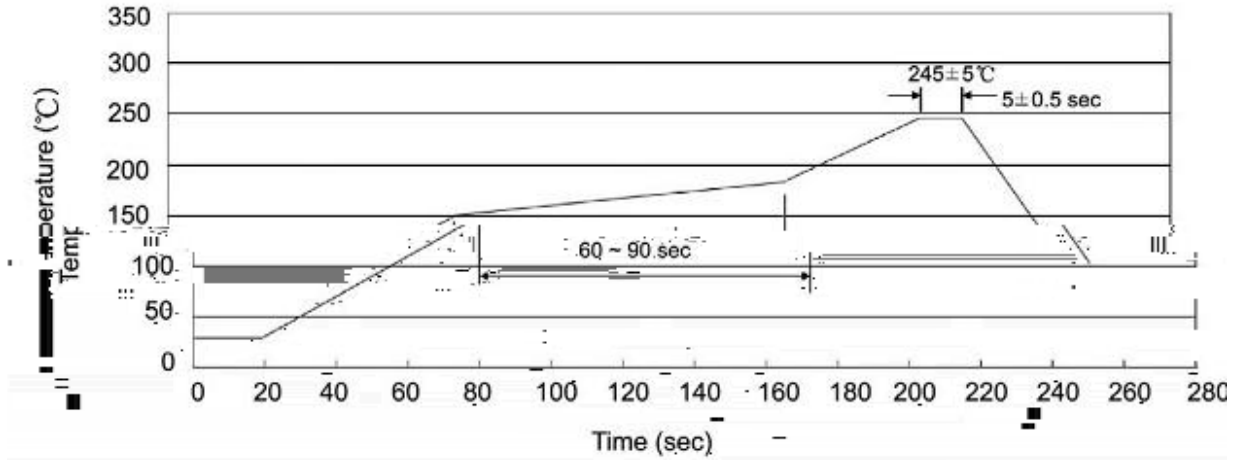
3 *

Note:

ES1D Product Type Code

**** Lot No. Code The 1st * means:YM Code The last 3 * means:little Lot No Code

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-------|-----|----|-----------|---|
| 1 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245±5 | | | 5±0.5sec; | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 | | | 2 | 10 /sec. | 3. Cooling Speed: 2~10 /sec. |