

/ 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 R HS 2011/65/EU directives For surface mounted applications.Halogen free product.

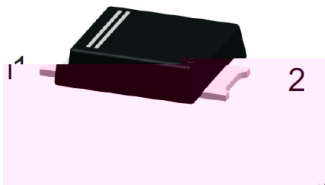
/ Applications

General purpose.

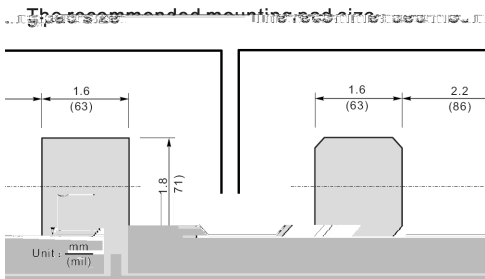
/ Equivalent Circuit



/ Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode



/ Marking

See Marking Instructions

/ Absolute Maximum Ratings($T_a=25$)

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	$R_{\theta JA}$	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.

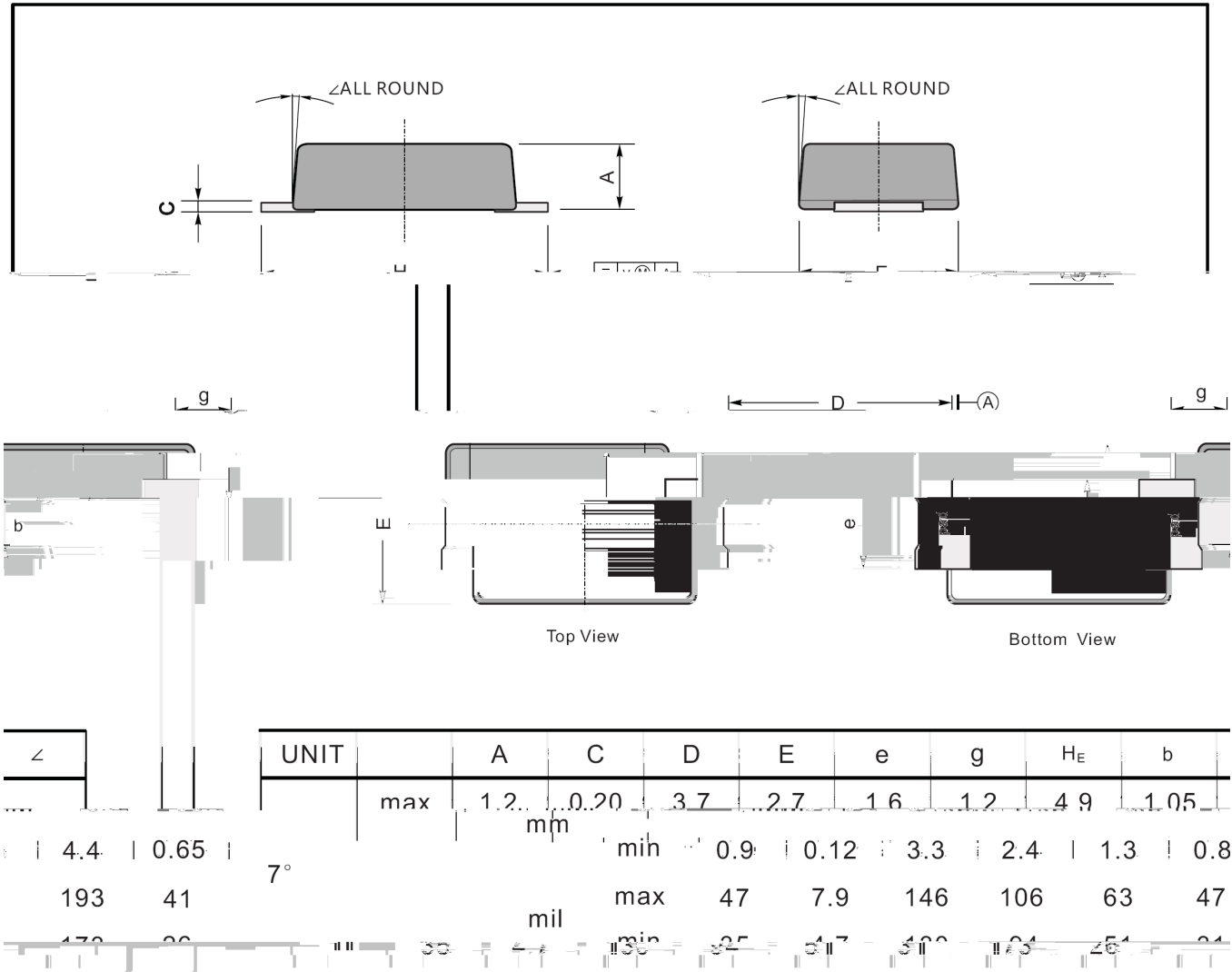
/ Electrical Characteristics($T_a=25$)

Parameter	Symbol	Test Conditions	Rating							Unit
			ES1AF	ES1BF	ES1CF	ES1DF	ES1EF	ES1GF	ES1JF	
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							A
		T _a =125	100							A
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





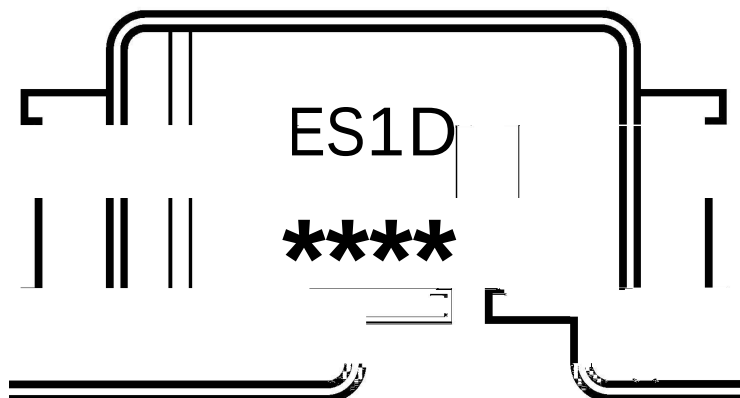
/ Marking Instructions

Marking

Type number	Marking code
ES1AF	ES1A
ES1BF	ES1B
ES1CF	ES1C
ES1DF	ES1D
ES1EF	ES1E
ES1GF	ES1G
ES1JF	ES1J



/ Marking Instructions



ES1D

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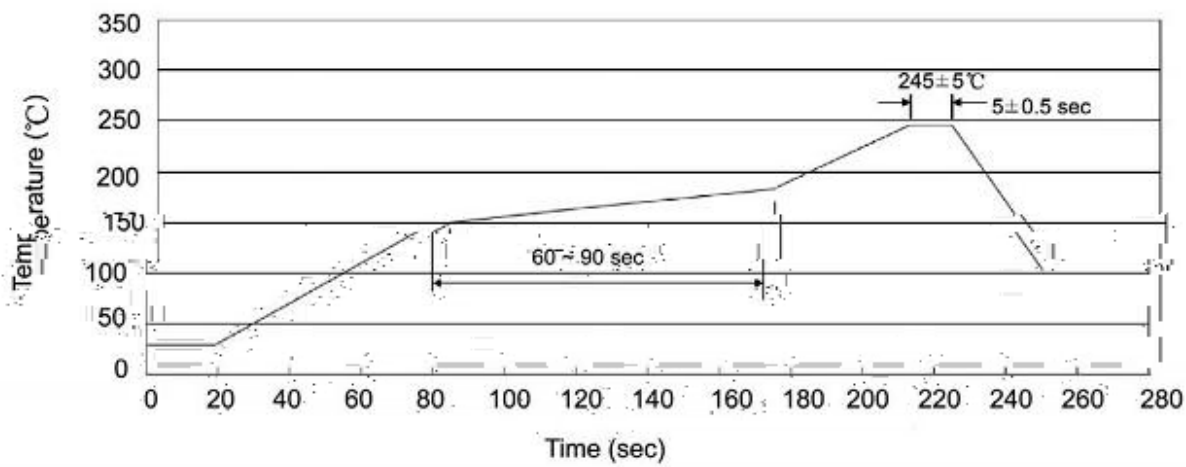
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Note:

ES1D Product Type Code

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

() /



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. |

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