



## DESCRIPTION

The DRS1AF~DRS1MF are available in SMAF package

## FEATURES

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Fast reverse recovery time
- Available in SMAF package

## ORDERING INFORMATION

Package Type	Part Number
SMAF	DRS1AF
	DRS1BF
	DRS1DF
	DRS1GF
	DRS1JF
	DRS1KF
	DRS1MF
Note	SPQ: 3,000pcs/Reel

AiT provides all RoHS Compliant Products

## MECHANICAL DATA

Case: SMAF

Terminals: Solderable per MIL-STD-750,  
Method 2026

Approx. Weight: 27mg 0.00086oz

## PIN DESCRIPTION





## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbol	DRS1AF	DRS1BF	DRS1DF	DRS1GF	DRS1JF	DRS1KF	DRS1MF	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_A=65^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	25							A
Maximum Instantaneous Forward Voltage at 1A	$V_F$	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_A=25^\circ\text{C}$ 5.0 $T_A=125^\circ\text{C}$ 100							$\mu\text{A}$
Maximum Reverse Recovery Time <sup>NOTE1</sup>	$t_{rr}$	150				250	500		ns
Typical Junction Capacitance <sup>NOTE2</sup>	$C_J$	15							pF
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 ~150							$^\circ\text{C}$

NOTE1: Measured with  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{rr}=0.25\text{A}$

NOTE2: Measured at 1MHz and applied reverse voltage of 4V D.C



## TYPICAL CHARACTERISTICS

Figure. 1 Forward Current Derating Curve

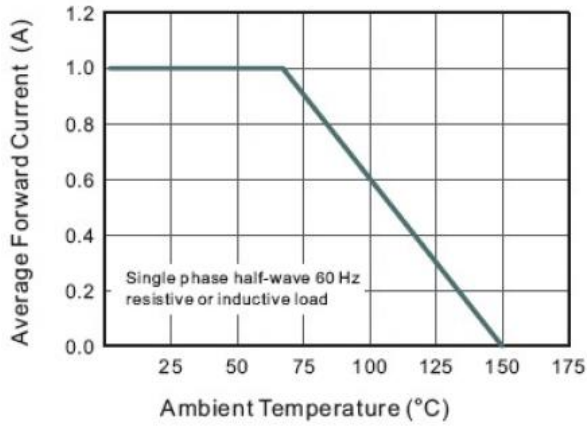


Figure. 2 Typical Reverse Characteristics

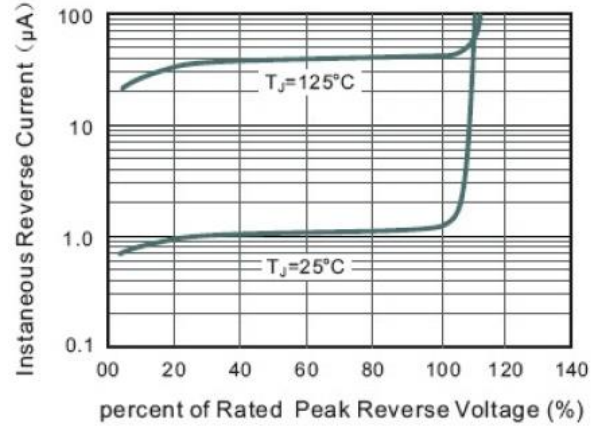


Figure. 3 Typical Instantaneous Forward Characteristics

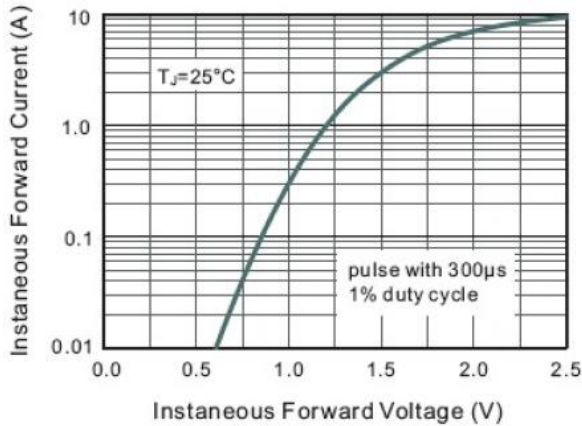


Figure. 4 Typical Junction Capacitance

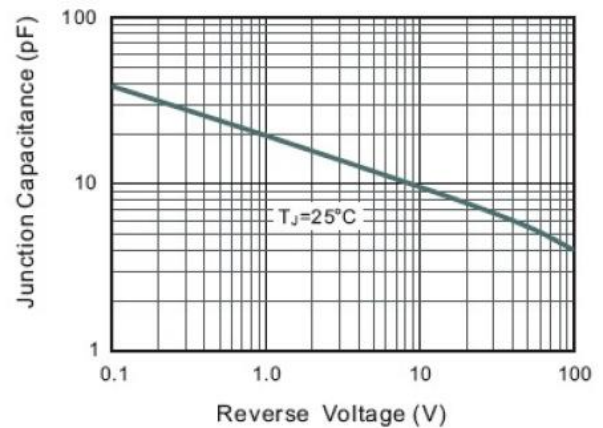
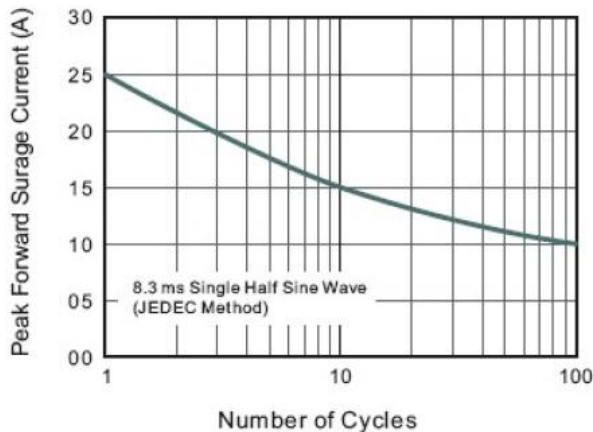


Figure. 5 Maximum Non-Repetitive Peak Forward Surge Current

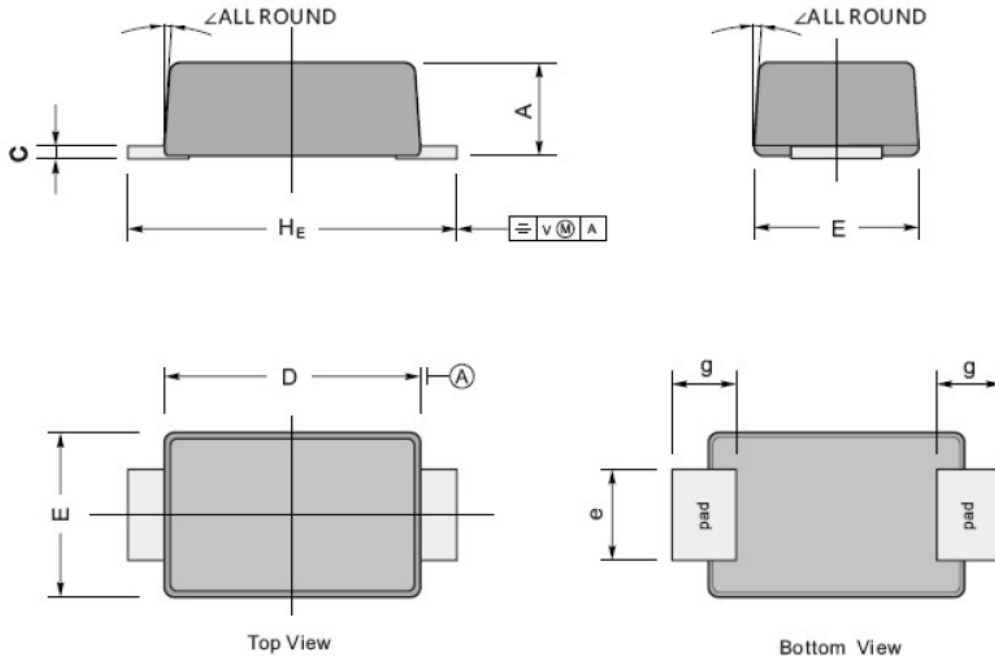




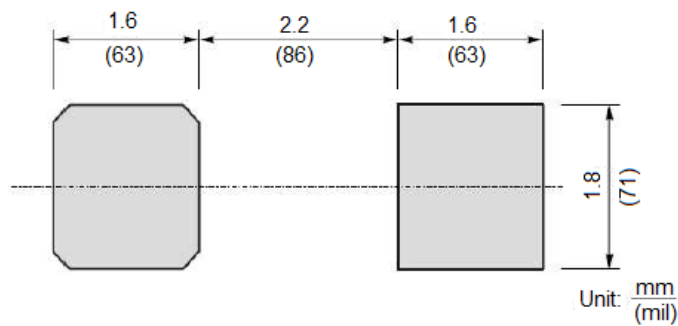
## PACKAGE INFORMATION

Dimension in SMAF (Unit: mm)

Plastic surface mounted package; 2 leads



The recommended mounting pad size



UNIT		A	c	D	E	e	g	$H_E$	$\sphericalangle$
mm	Max	1.1	0.20	3.7	2.7	1.6	1.2	4.9	7°
	Min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	
mil	Max	43	7.9	146	106	63	47	193	
	Min	35	4.7	130	94	51	31	173	



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