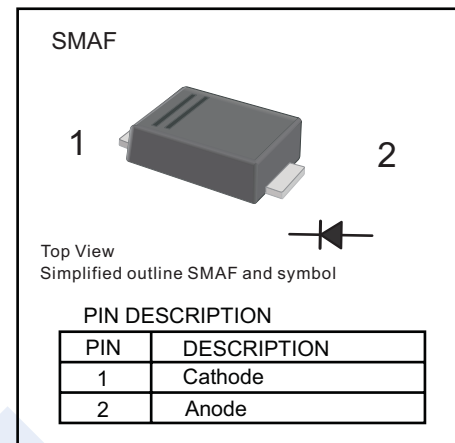


## Rectifier Diodes

## RS1AF ~ RS1MF

## ■ Features

- Reverse Voltage - 50 to 1000V
- Forward Current - 1A
- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place



## ■ Absolute Maximum Ratings and Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Parameter	Symbol	RS1 AF	RS1 BF	RS1 DF	RS1 GF	RS1 JF	RS1 KF	RS1 MF	Units	
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		
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000		
Instantaneous Forward Voltage at 1A	$V_F$	1.3								A
Averaged Forward Current $T_C=125^\circ\text{C}$	$I_{F(AV)}$	1								
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	$I_{FSM}$	30								
Maximum DC Reverse Current $T_a=25^\circ\text{C}$ at rated DC blocking voltage $T_a=125^\circ\text{C}$	$I_R$	5								$\mu\text{A}$
		50								
Typical Junction Capacitance at $V_R=4\text{V}$ , $f=1\text{MHz}$	$C_j$	15								pF
Maximum Reverse Recovery Time (1)	$t_{rr}$	150				250	500		ns	
Typical thermal resistance (2)	$R_{\theta JA}$	80								$^\circ\text{C}/\text{W}$
Junction Temperature	$T_j$	150								$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to 150								

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

(2) P.C.B mounted with 2" × 2" (5×5 cm) copper pad areas.

## ■ Marking

NO.	RS1AF	RS1BF	RS1DF	RS1GF	RS1JF	RS1KF	RS1MF
Marking	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M

# Rectifier Diodes

## RS1AF ~ RS1MF

### Typical Characteristics

Fig.1 Forward Current Derating Curve

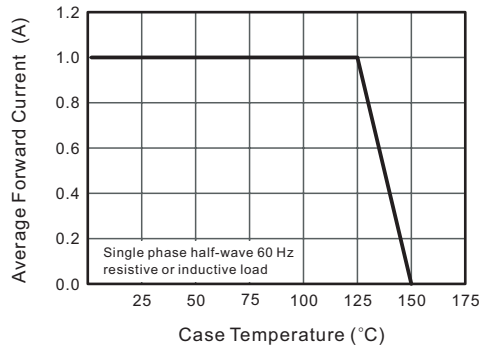


Fig.2 Typical Reverse Characteristics

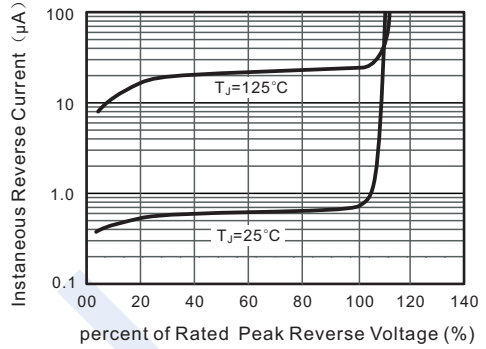


Fig.3 Typical Instantaneous Forward Characteristics

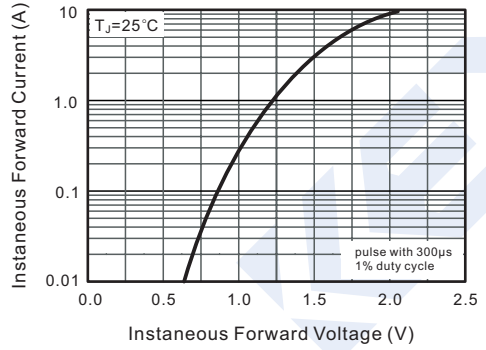


Fig.4 Typical Junction Capacitance

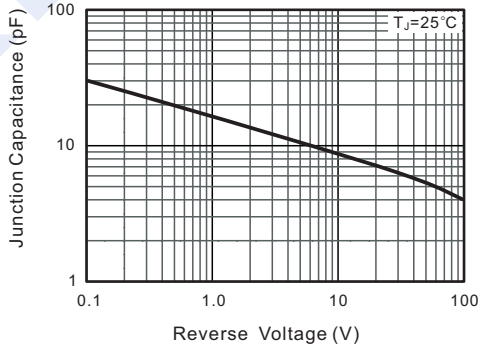
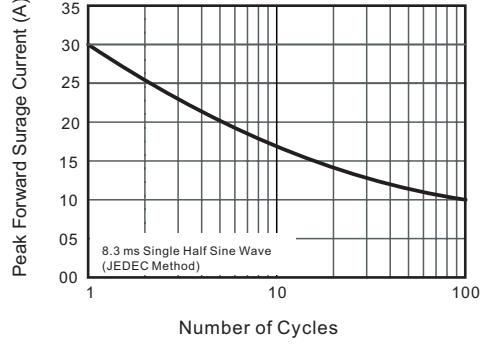


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

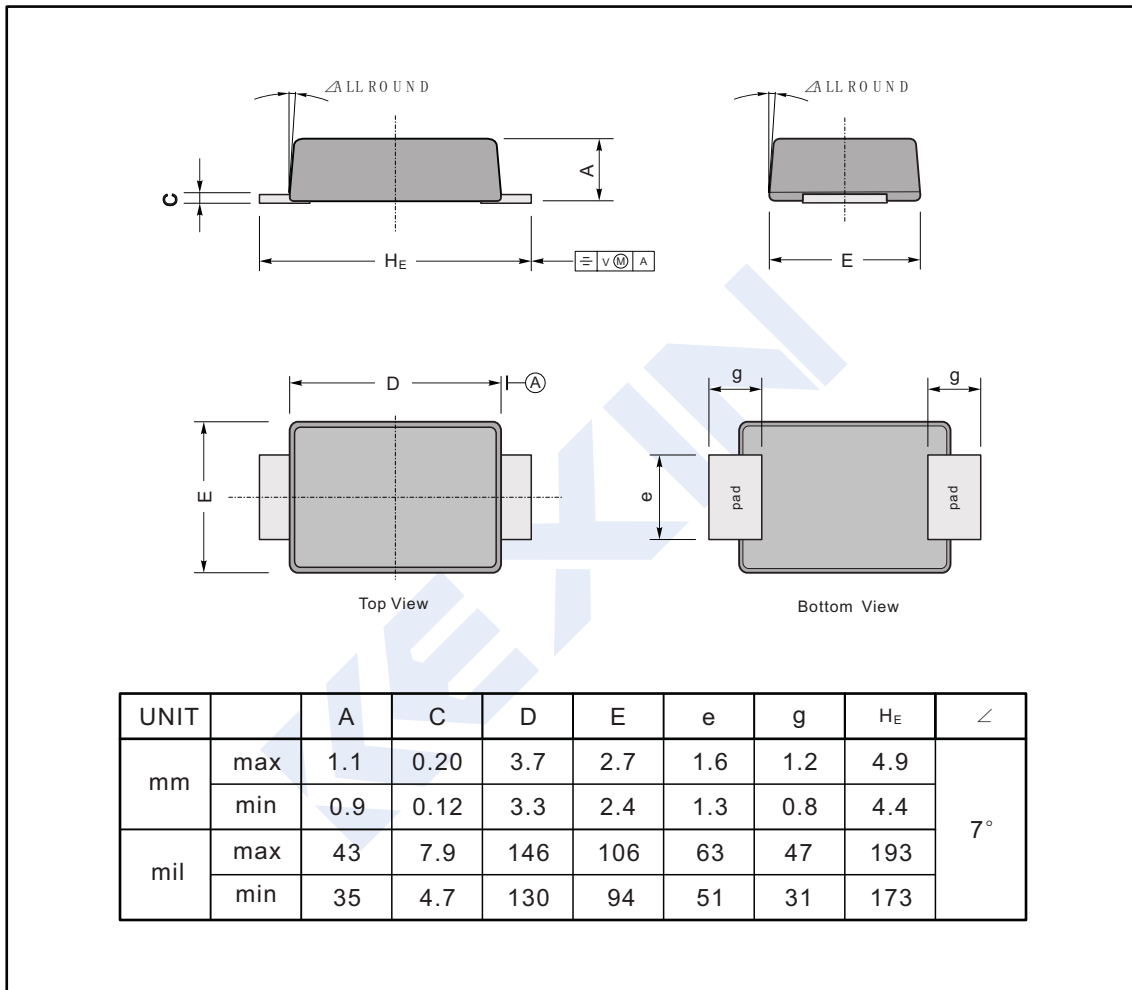


## Rectifier Diodes RS1AF ~ RS1MF

■ Package Outline Dimensions

Plastic surface mounted package; 2 leads

SMAF



■ The Recommended Mounting Pad Size

