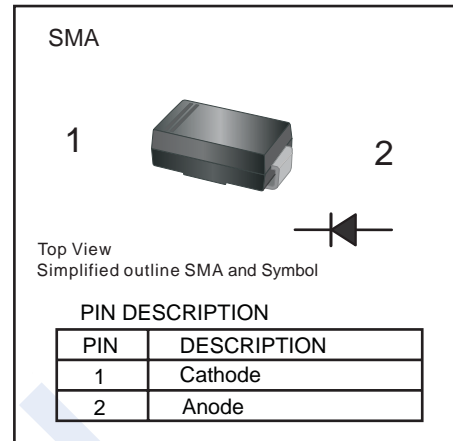


## Fast Recovery Rectifier

### RS1A ~ RS1M

#### ■ Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Fast switching for high efficiency
- Low reverse leakage
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed:  
250°C/10 seconds at terminals



#### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	Unit	
Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V	
Surge Peak Reverse Voltage	$V_{RSM}$	35	70	140	280	420	560	700		
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000		
Instantaneous Forward Voltage at $I_F=1\text{A}$	$V_F$	1.3								
Averaged Forward Current at $T_L=75^\circ\text{C}$	$I_{FAV}$	1								
Peak forward surge current	$I_{FSM}$	30								A
Maximum DC Reverse Current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	$I_R$	5								$\mu\text{A}$
		50								
Reverse Recovery Time *1	$t_{rr}$	150					250	500	ns	
Typical Junction Capacitance *2	$C_j$	15								pF
Typical thermal resistance *3	$R_{thJA}$	50								$^\circ\text{C}/\text{W}$
Junction Temperature	$T_j$	150								$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to 150								

\* 1 Reverse recovery condition  $I_F = 0.5\text{ A}$ ,  $I_R = 1\text{ A}$ ,  $I_{rr} = 0.25\text{ A}$

\* 2 Measured at 1MHz and applied reverse voltage of 4V D.C

\* 3 P.C.B. mounted with 0.2x0.2" (5x5mm) copper pad areas

#### ■ Marking

NO.	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M
Marking	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M

# Fast Recovery Rectifier

## RS1A ~ RS1M

■ Typical Characteristics

Fig.1 Forward Current Derating Curve

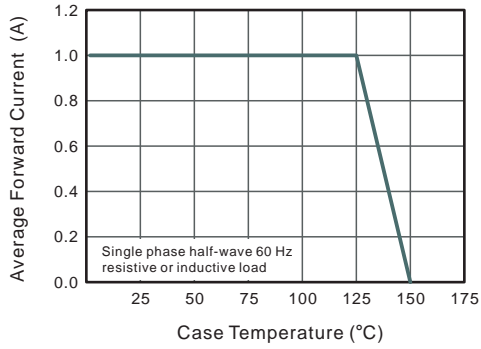


Fig.2 Typical Reverse Characteristics

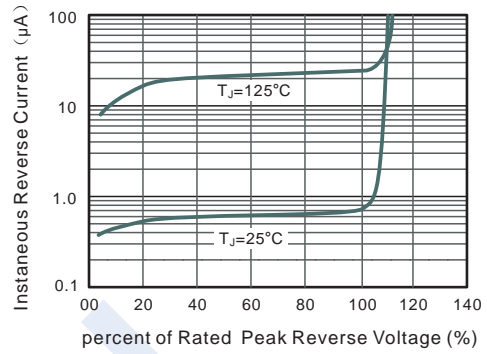


Fig.3 Typical Instantaneous Forward Characteristics

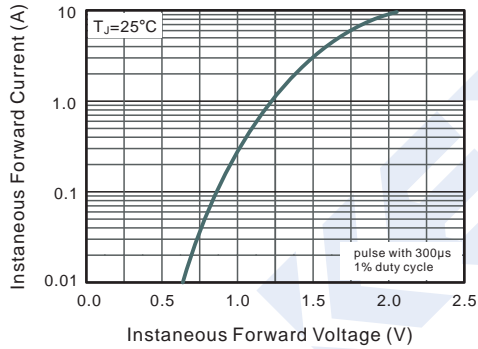


Fig.4 Typical Junction Capacitance

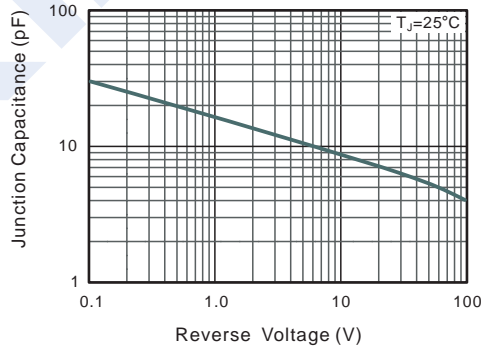
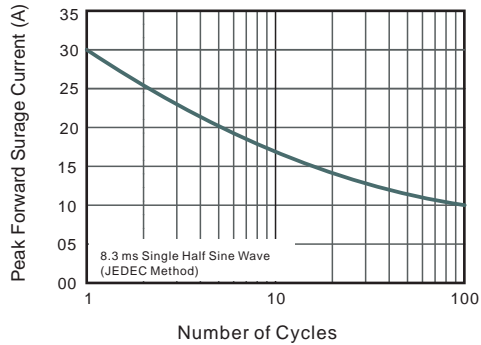


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



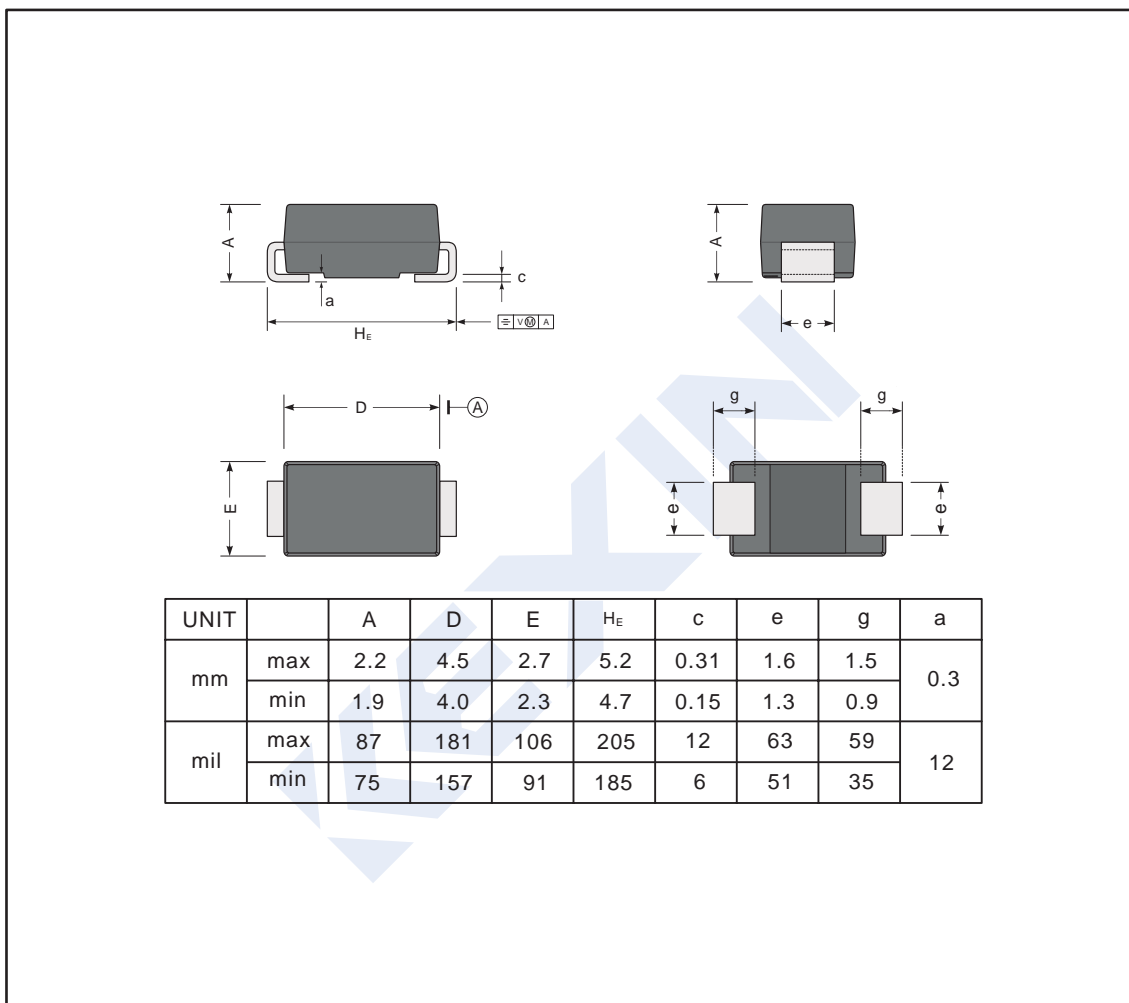
## Fast Recovery Rectifier

## RS1A ~ RS1M

## ■ Package Outline Dimensions

Plastic surface mounted package; 2 leads

SMA



## ■ The recommended mounting pad size

