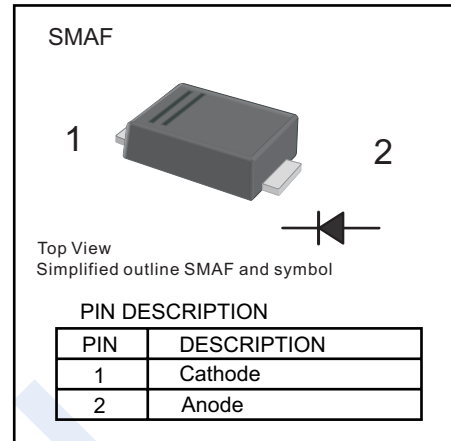


Fast Recovery Rectifier

FR101F ~ FR107F

■ 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	FR 101F	FR 102F	FR 103F	FR 104F	FR 105F	FR 106F	FR 107F	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							A
Averaged Forward Current at $T_L=75^\circ\text{C}$	I_{FAV}	1							
Peak forward surge current	I_{FSM}	30							
Maximum DC Reverse Current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	I_R	5							μA
		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 0.2×0.2" (5×5mm) copper pad areas

■ Marking

NO.	FR101F	FR102F	FR103F	FR104F	FR105F	FR106F	FR107F
Marking	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M

Fast Recovery Rectifier

FR101F ~ FR107F

■ Typical Characteristics

Fig.1 Forward Current Derating Curve

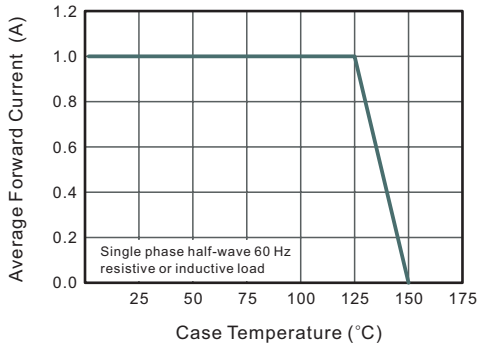


Fig.2 Typical Reverse Characteristics

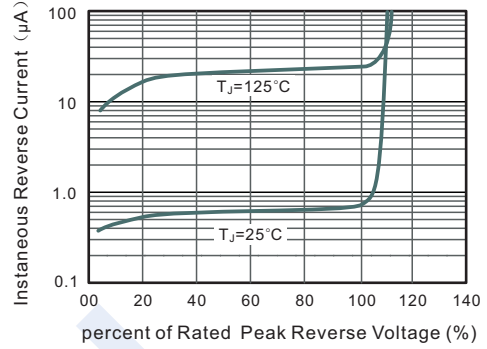


Fig.3 Typical Instantaneous Forward Characteristics

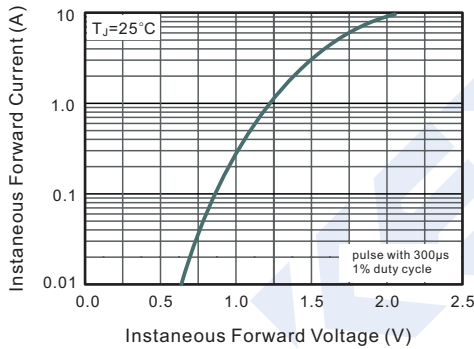


Fig.4 Typical Junction Capacitance

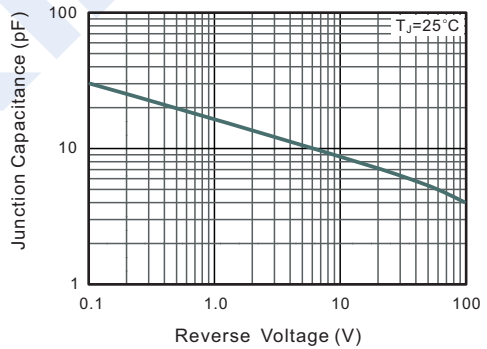
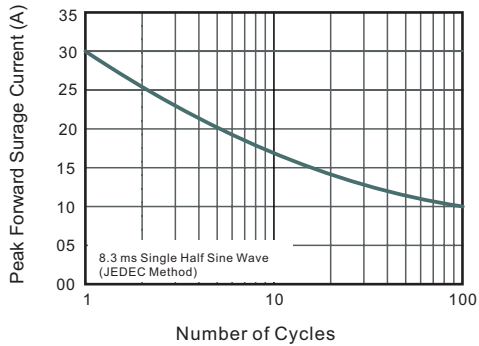


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



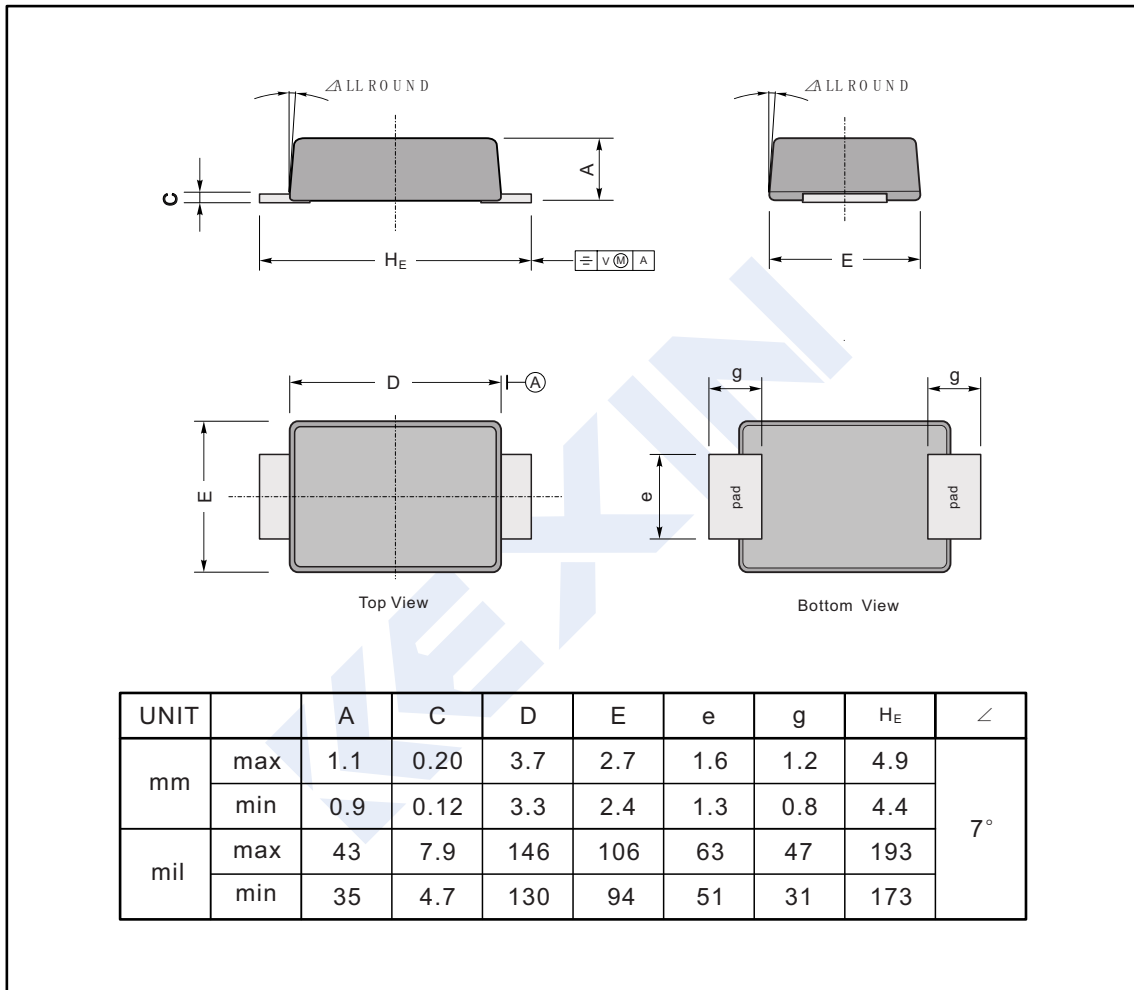
Fast Recovery Rectifier

FR101F ~ FR107F

■ Package Outline Dimensions

Plastic surface mounted package; 2 leads

SMAF



■ The Recommended Mounting Pad Size

