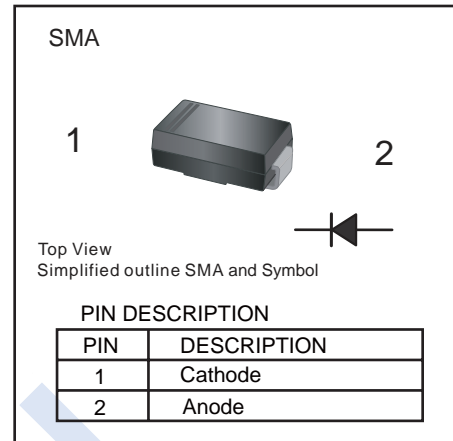


Fast Recovery Rectifier

1KF3120A ~ 1KF3170A

■ 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	1KF3120A	1KF3160A	1KF3170A	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	200	600	1000	V
Surge Peak Reverse Voltage	V_{RSM}	140	420	700	
Maximum DC Blocking Voltage	V_{DC}	200	600	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			μA
		50			
Reverse Recovery Time *1	t_{rr}	150	250	500	ns
Typical Junction Capacitance *2	C_j	15			pF
Typical thermal resistance *3	$R_{\theta JA}$	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.	1KF3120A	1KF3160A	1KF3170A
Marking	3R02	3R06	3R10

1KF3120A ~ 1KF3170A

■ Typical Characteristics

Fig.1 Forward Current Derating Curve

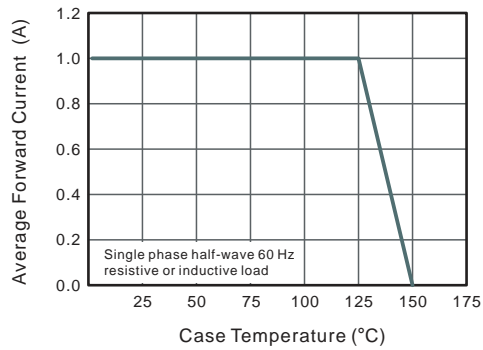


Fig.2 Typical Reverse Characteristics

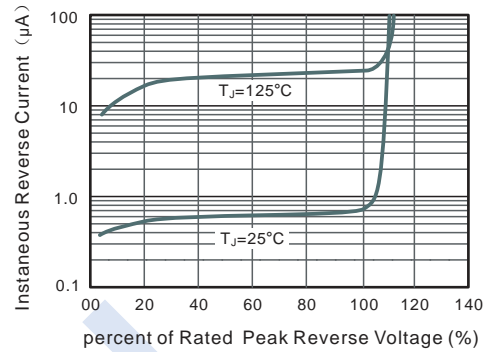


Fig.3 Typical Instantaneous Forward Characteristics

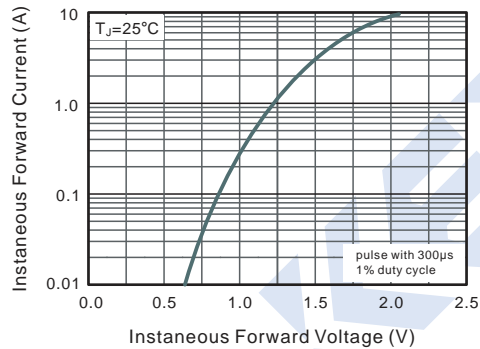


Fig.4 Typical Junction Capacitance

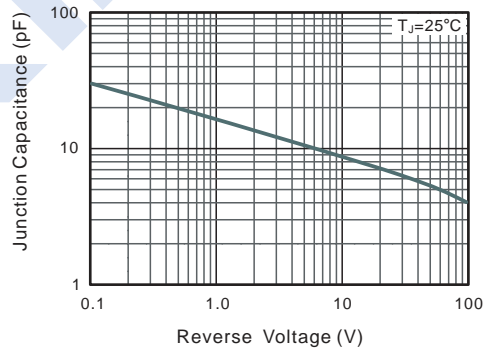
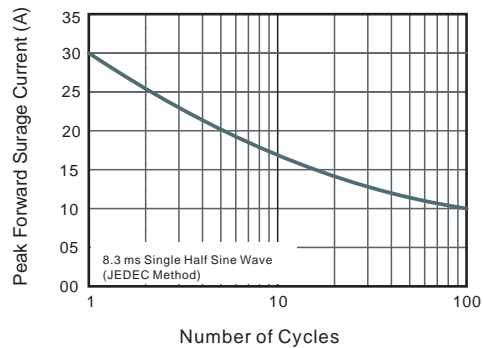


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

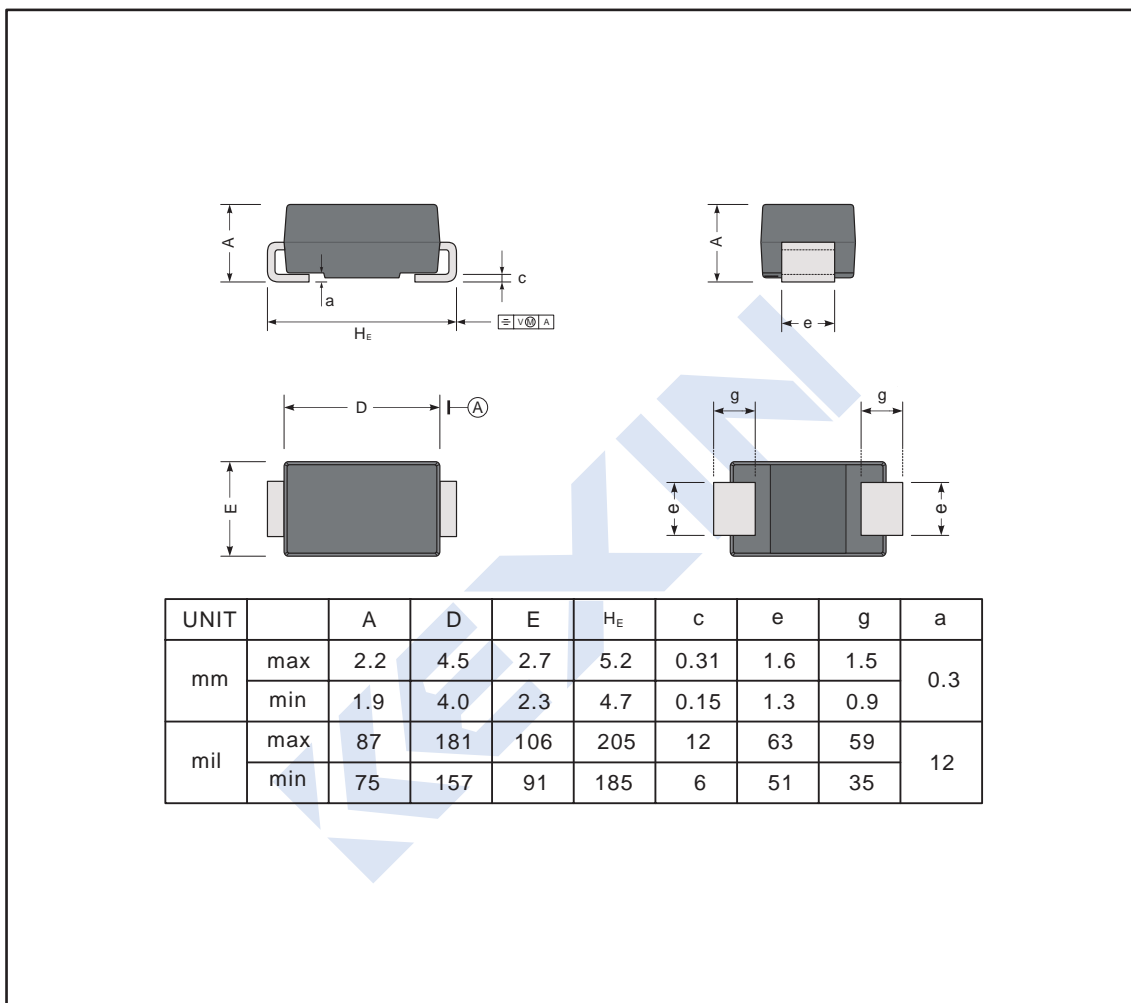


1KF3120A ~ 1KF3170A

■ Package Outline Dimensions

Plastic surface mounted package; 2 leads

SMA



■ The recommended mounting pad size

