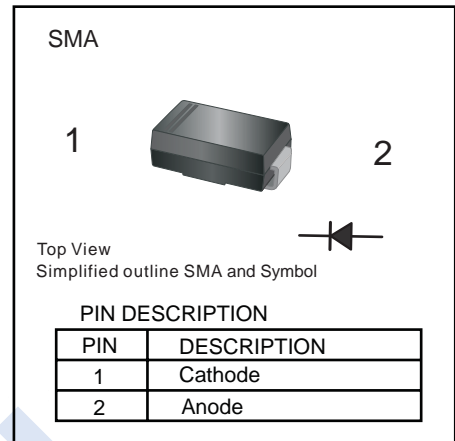


Super-Fast Recovery Rectifier

1KF1120A ~ 1KF1170A

■ Features

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Superfast reverse recovery time



■ 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	1KF1120A	1KF1160A	1KF1170A	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	200	600	1000	V
Maximum RMS voltage	V_{RSM}	140	420	700	
Maximum DC Blocking Voltage	V_{DC}	200	600	1000	
Maximum Forward Voltage at 1 A	V_F	1	1.70		
Maximum Average Forward Rectified Current at $T_c = 125^\circ\text{C}$	$I_{F(AV)}$	1			A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	30			
Maximum DC Reverse Current at rated DC blocking voltage	I_R	$T_a=25^\circ\text{C}$	5		μA
		$T_a=125^\circ\text{C}$	100		
Typical Junction Capacitance *1	C_j		15		pF
Maximum Reverse Recovery Time *2	t_{rr}		35		ns
Typical thermal resistance *3	$R_{\theta JA}$		75		$^\circ\text{C}/\text{W}$
Junction Temperature	T_j		150		$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to 150		

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

* 2 Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = 0.25\text{A}$.

* 3. P.C.B. mounted with 1.0 X 1.0" (2.54 X 2.54 cm) copper pad areas.

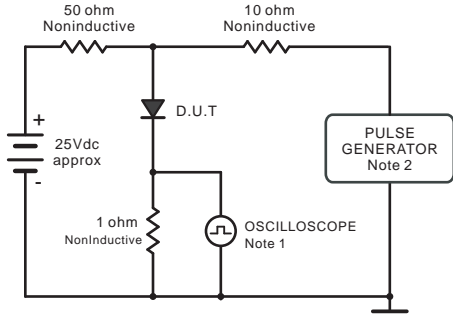
■ Marking

NO.	1KF1120A	1KF1160A	1KF1170A
Marking	1R02	1R06	1R10

1KF1120A ~ 1KF1170A

■ Typical Characteristics

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



Note: 1. Rise Time = 7ns, max.
Input Impedance = 1megohm, 22pF.
2. Rise Time = 10ns, max.
Source Impedance = 50 ohms.

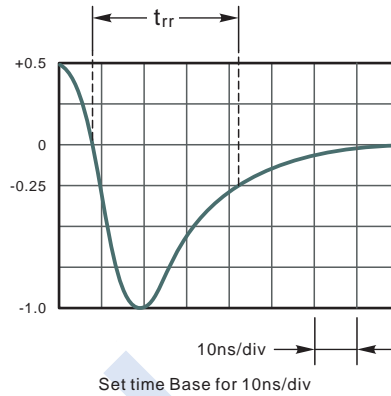


Fig.2 Maximum Average Forward Current Rating

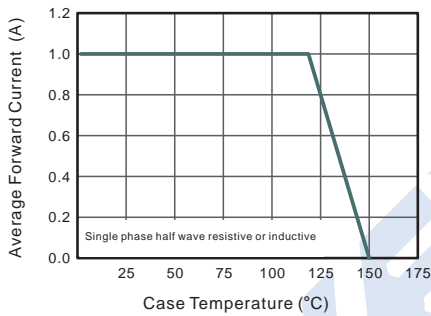


Fig.3 Typical Reverse Characteristics

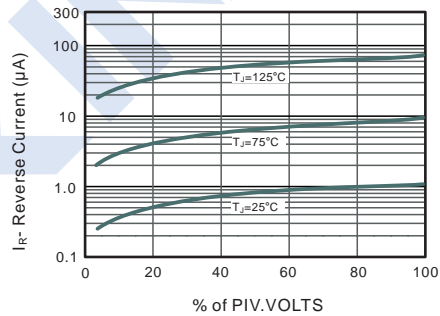


Fig.4 Typical Forward Characteristics

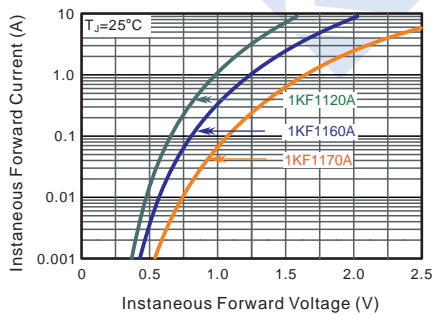


Fig.5 Typical Junction Capacitance

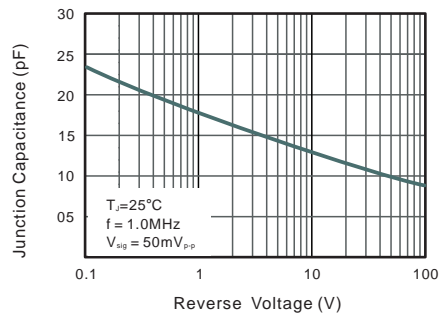
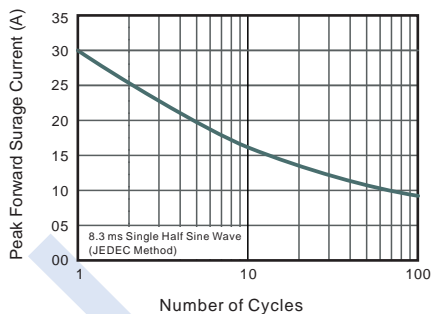


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current

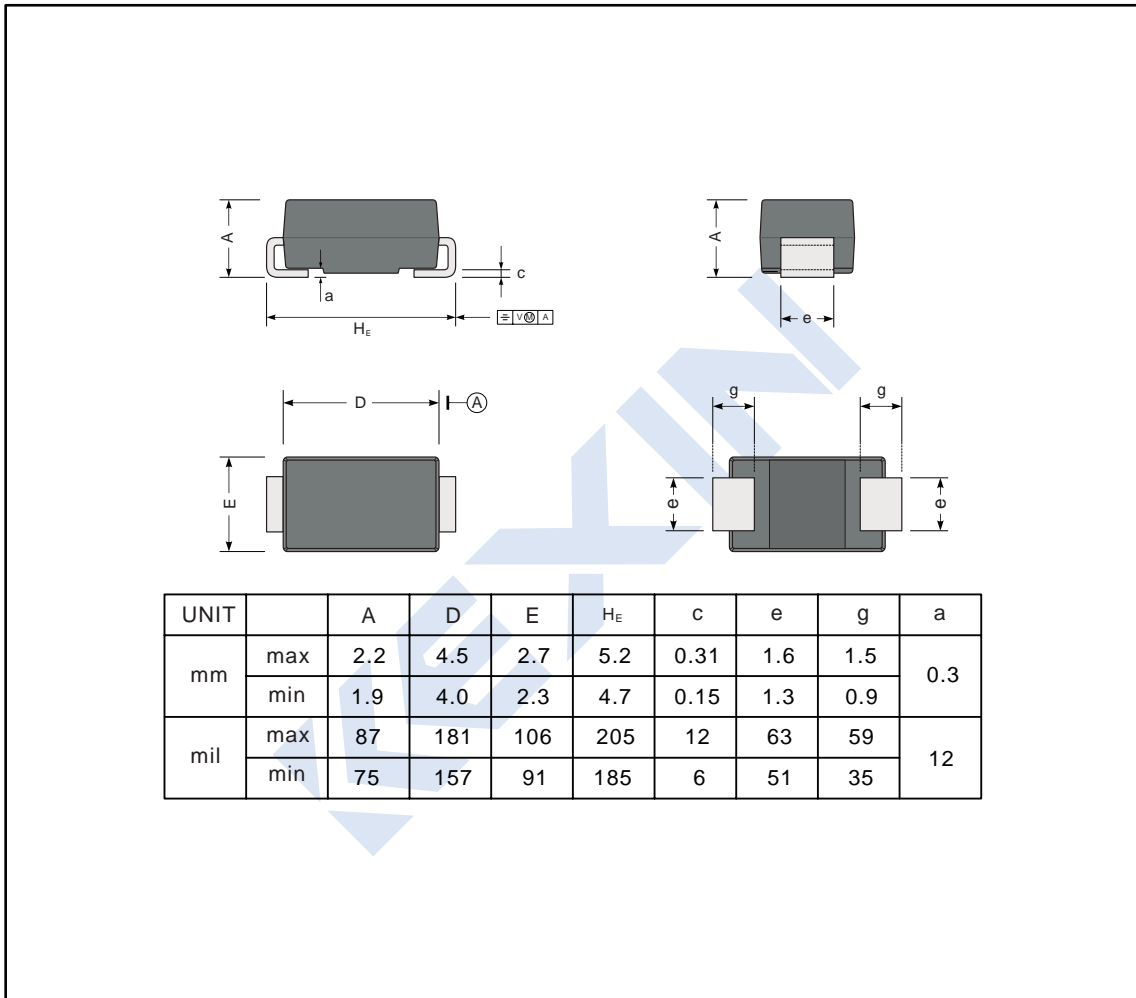


1KF1120A ~ 1KF1170A

■ Package Outline Dimensions

Plastic surface mounted package; 2 leads

SMA



■ The recommended mounting pad size

