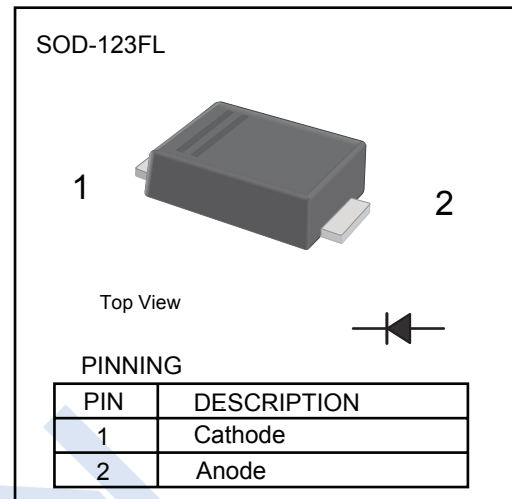


## Fast Recovery Rectifiers

## 1KF2102D ~ 1KF2107D

## ■ Features

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications



## ■ Absolute Maximum Ratings and Electrical characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	1KF2102D	1KF2106D	1KF2107D	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	200	600	1000	V
Maximum RMS voltage	$V_{RMS}$	140	420	700	
Maximum DC Blocking Voltage	$V_{DC}$	200	600	1000	
Maximum Instantaneous Forward Voltage at 1A	$V_F$	1.3			A
Maximum Averaged Forward Rectified Current	$I_{F(AV)}$	1			
Peak Forward Surge Current, 8.3 ms Single Half Sine Wave Superimposed on Rated Load	$I_{FSM}$	30			μA
Maximum DC Reverse Current at rated DC blocking voltage	$I_R$	5 100			
Typical Junction Capacitance	$C_j$	15			pF
Maximum Reverse Recovery Time	$t_{rr}$	150	250	500	ns
Typical Thermal Resistance	$R_{\theta JA}$	85			°C/W
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150			°C

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

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

\* 3 P.C.B. mounted with 2.0" × 2.0" (5×5 cm) copper pad areas.

## ■ Marking

NO.	1KF2102D	1KF2106D	1KF2107D
Marking	F2	F6	F7

# Fast Recovery Rectifiers

## 1KF2102D ~ 1KF2107D

### ■ Typical Characteristics

Fig.1 Forward Current Derating Curve

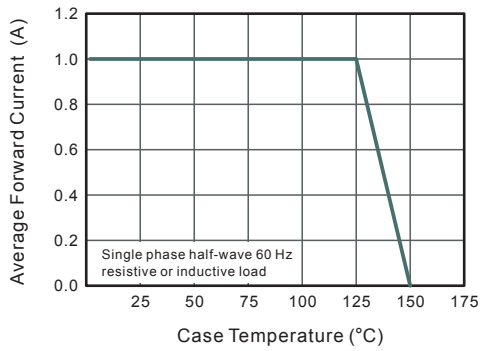


Fig.2 Typical Reverse Characteristics

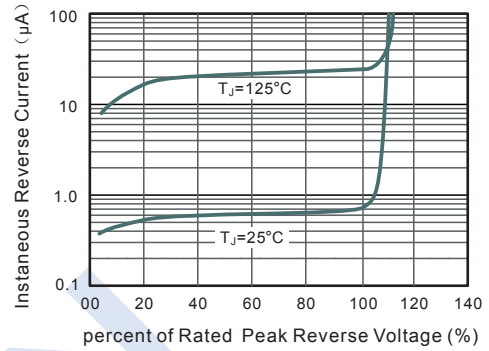


Fig.3 Typical Instantaneous Forward Characteristics

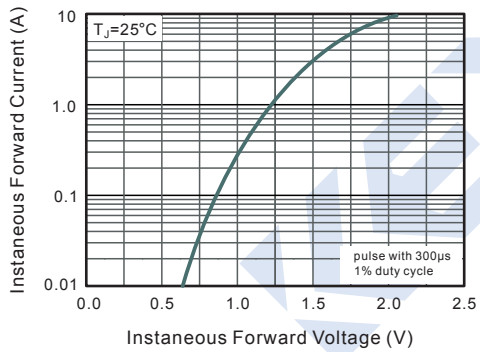


Fig.4 Typical Junction Capacitance

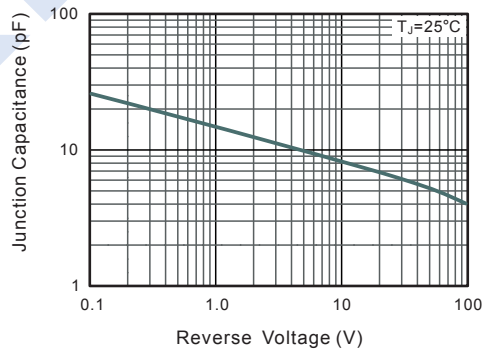
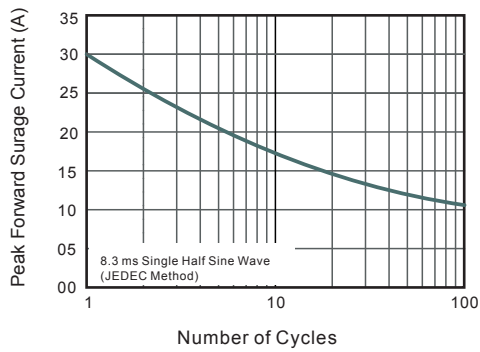


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



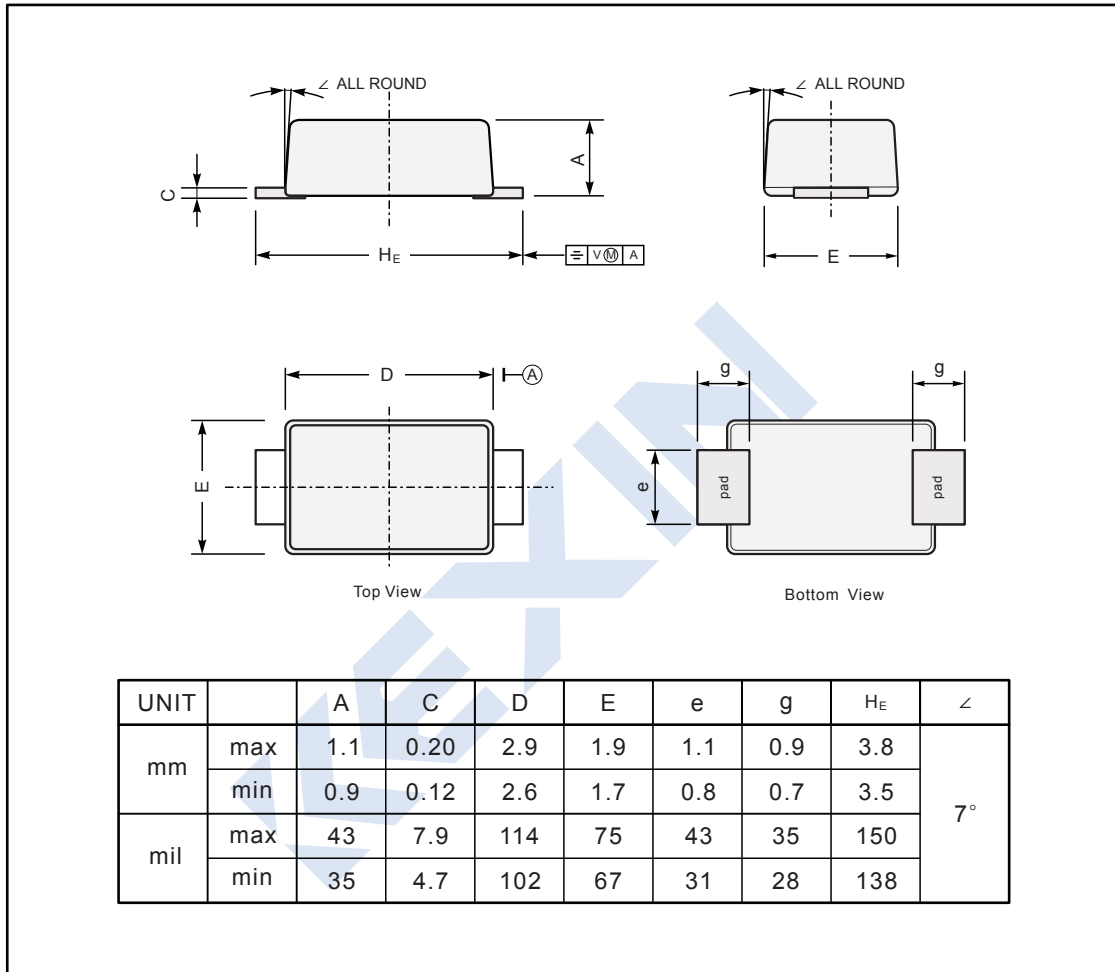
## Fast Recovery Rectifiers

### 1KF2102D ~ 1KF2107D

■ Package Outline Dimensions

Plastic surface mounted package; 2 leads

SOD-123FL



■ The Recommended Mounting Pad Size

