

# FM4001 - FM4007

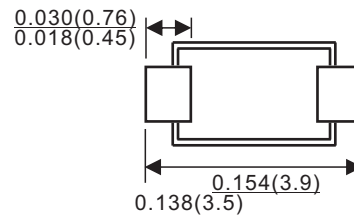
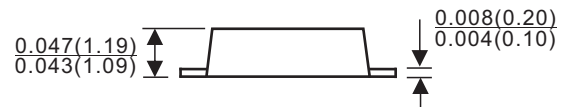
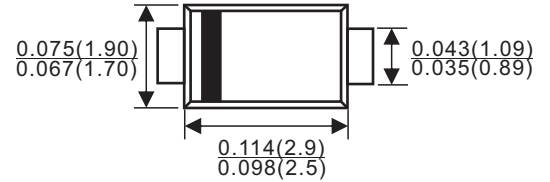
## 1.0A Surface Mount General Purpose Rectifiers



SOD-123FL

### Features

- ◇ Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.
- ◇ Low profile surface mounted application in order to optimize board space.
- ◇ Tiny plastic SMD package.
- ◇ High current capability.
- ◇ High surge capability.
- ◇ Glass passivated chip junction.



Dimensions in inches and (millimeters)

### Mechanical data

- ◇ Case : Molded plastic, SOD-123FL
- ◇ Polarity : Indicated by cathode band
- ◇ Mounting Position : Any
- ◇ Weight : Approximated 0.01gram

## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

### Maximum ratings

		FM 4001	FM 4002	FM 4003	FM 4004	FM 4005	FM 4006	FM 4007	UNITS
Device marking code		A1	A2	A3	A4	A5	A6	A7	
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current @ $T_A=75$	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	25							A
Maximum instantaneous forward voltage @ $I_{FM}=1.0A$ (Note 1)	$V_F$	1.1							V
Maximum DC reverse current @ $T_A=25$ at rated DC blocking voltage @ $T_A=125$	$I_R$	5.0 50							$\mu A$
Typical junction capacitance measured at $f=1MHz, V_R=4.0V$	$C_J$	15							p F
Typical thermal resistance junction to lead	$R_{\theta JL}$	20							/W
Operating temperature range	$T_j$	- 55 --- + 150							
Storage temperature range	$T_{STG}$	- 55 --- + 150							

NOTE1. Pulse test: pulse width 300 $\mu$ sec, duty cycle 2%.

### Rating and characteristic curves (FM4001 THRU FM4007)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

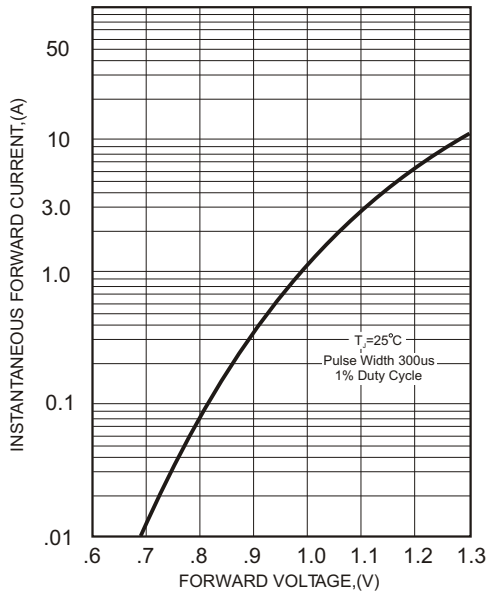


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

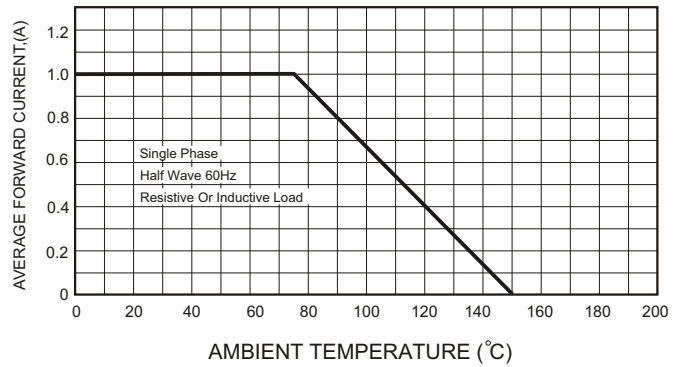


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

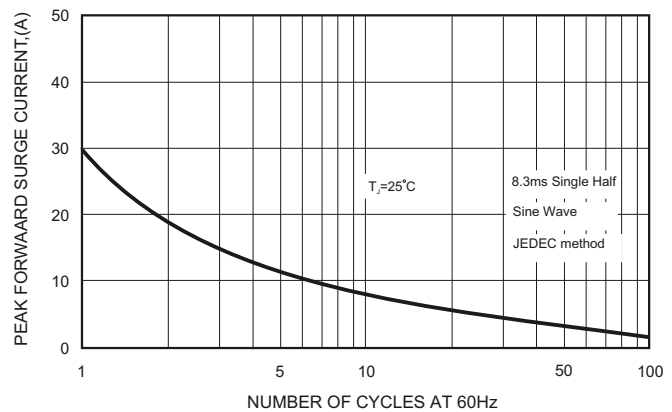


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

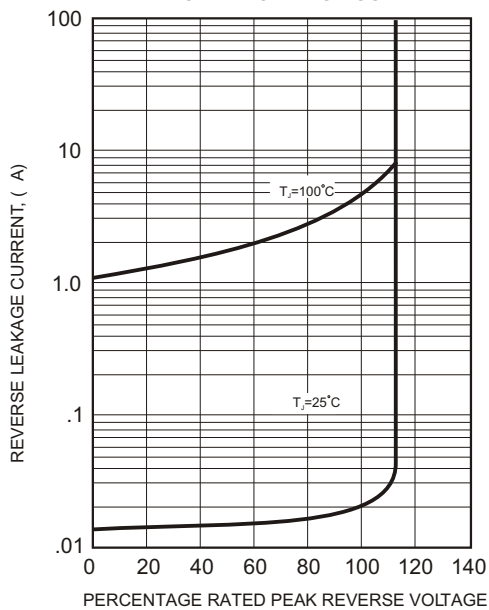


FIG.5-TYPICAL JUNCTION CAPACITANCE

