



## FFM101 - FFM107

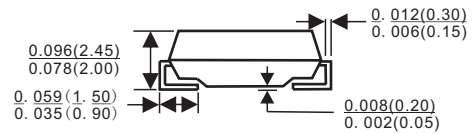
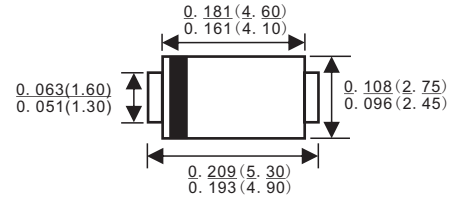
1.0A Surface Mount Fast Recovery Rectifiers



### 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.
- ✧ Fast switching for high efficiency.
- ✧ High surge current capability.
- ✧ Glass passivated chip junction.
- ✧ Lead-free parts meet RoHS requirements.

### SMA/DO-214AC



Dimensions in inches and (millimeters)

### Mechanical data

- ✧ Case : Molded plastic, SMA
- ✧ 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

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.2	$I_o$			1.0	A
Forward surge current	8.3ms single halfsine-wave superimposed on rate load (JEDEC methode)	$I_{FSM}$			30	A
Reverse current	$V_R = V_{RRM} T_A = 25^\circ C$	$I_R$			5.0	uA
	$V_R = V_{RRM} T_A = 100^\circ C$				100	
Thermal resistance	Junction to ambient	$R_{\theta JA}$		42		°C/W
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	$C_J$		15		pF
Storage temperature		$T_{STG}$	-65		+175	°C

SYMBOLS	$V_{RRM}^{*1}$ (V)	$V_{RMS}^{*2}$ (V)	$V_R^{*3}$ (V)	$V_F^{*4}$ (V)	$T_{RR}^{*5}$ (nS)	Operating temperature $T_J$ , (°C)
FFM101	50	35	50	1.30	150	-55 to +150
FFM102	100	70	100			
FFM103	200	140	200			
FFM104	400	280	400		250	
FFM105	600	420	600			
FFM106	800	560	800		500	
FFM107	1000	700	1000			

\*1 Repetitive peak reverse voltage

\*2 RMS voltage

\*3 Continuous reverse voltage

\*4 Maximum forward voltage

\*5 Reverse recovery time

# FFM101 - FFM107

1.0A Surface Mount Fast Recovery Rectifiers

## Rating and characteristic curves (FFM101 THRU FFM107)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

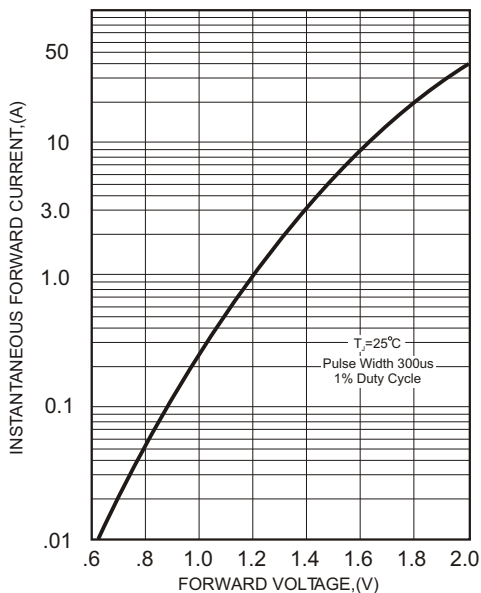


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

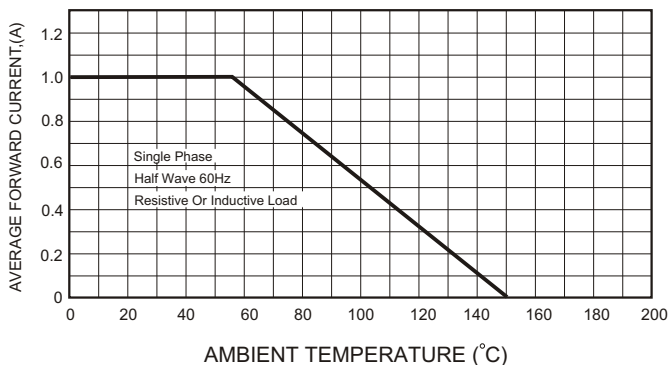


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

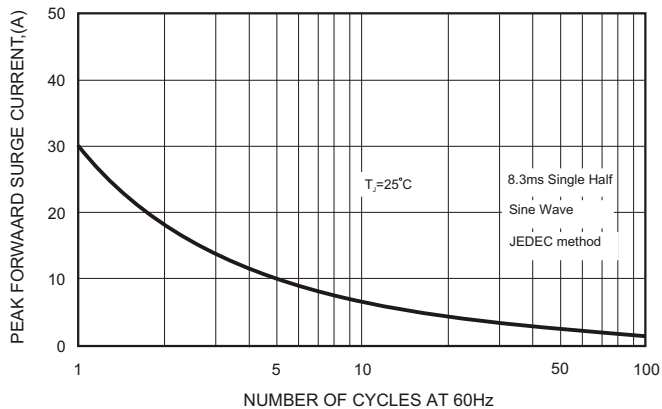
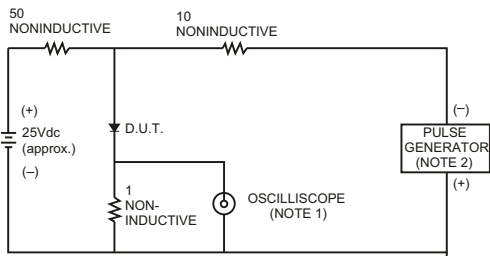


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

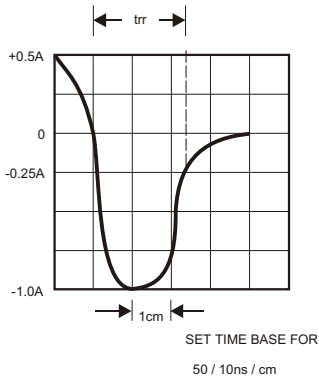


FIG.5-TYPICAL JUNCTION CAPACITANCE

