

## Applications

- High speed switching and rectification
- Switching mode power supply

## Features

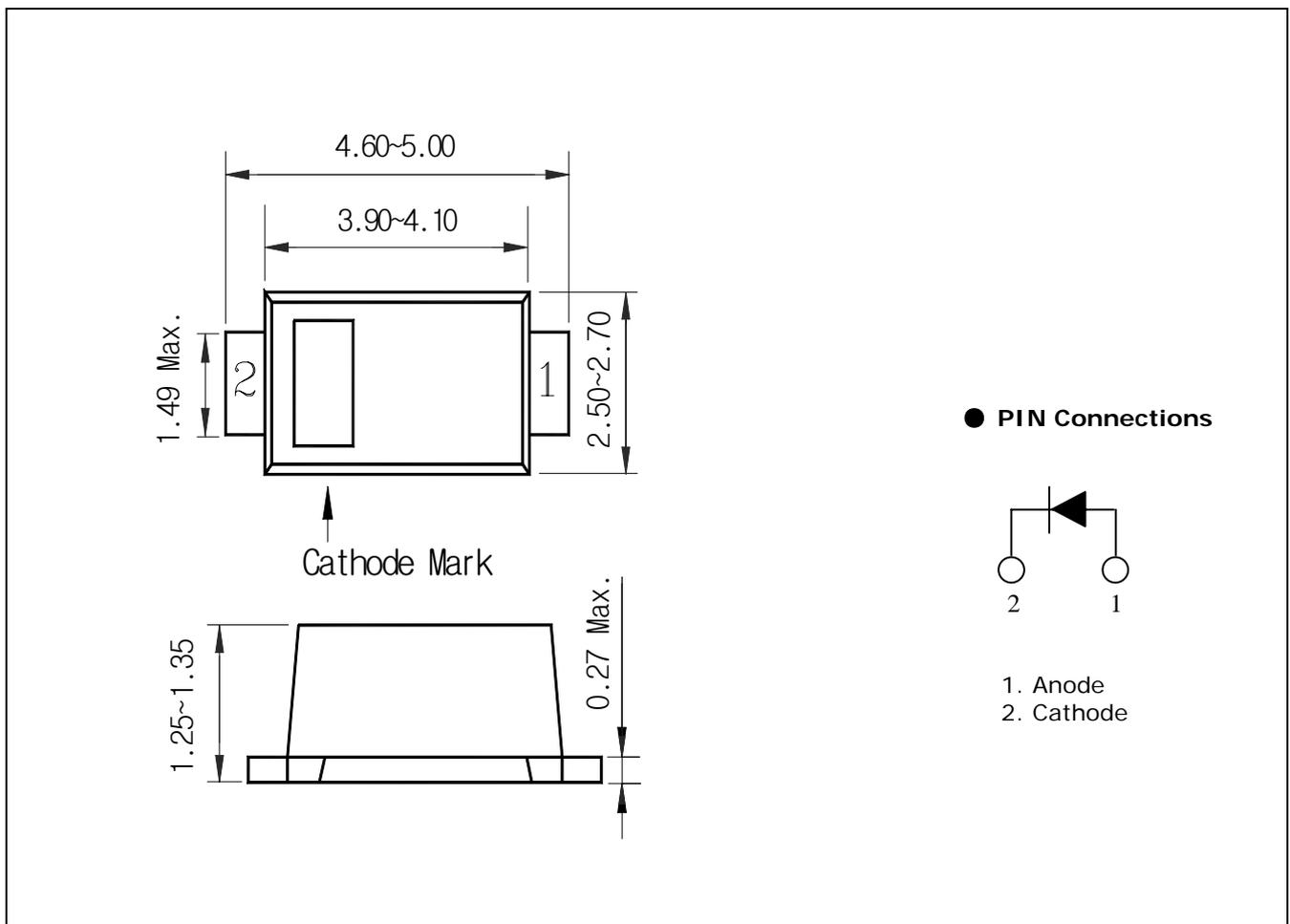
- Ultra-fast reverse recovery time:  $t_{rr}=30\text{ns}$  Max.
- Small & compact type SMD package
- Low forward voltage & low reverse current
- Low switching loss

## Ordering Information

Type No.	Marking	Package Code
SF1A200H	1A2H	SOD-106

## Outline Dimensions

unit : mm



## Absolute Maximum Ratings

[Ta=25°C]

Characteristic	Symbol	Rating	Unit
Repetitive peak reverse voltage	$V_{RRM}$	200	V
Average rectified output current	$I_O$	1.0	A
Peak forward surge current (Non-repetitive 60Hz sine wave)	$I_{FSM}$	20	A
Junction temperature	$T_J$	150	°C
Storage temperature range	$T_{stg}$	-45 ~ 150	°C

## Electrical Characteristics

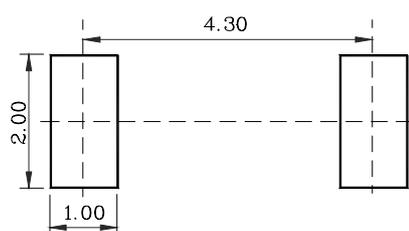
[Ta=25°C]

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Peak forward voltage	$V_{FM}^{1)}$	$I_F=1A$	-	-	0.98	V
Repetitive peak reverse current	$I_{RRM}$	$V_R=200V$	-	-	10	$\mu A$
Reverse recovery time	$t_{rr}$	$I_F=0.5A, di/dt=-100A/\mu s$	-	-	30	ns
Thermal resistance	$R_{th}$	Junction to ambient <sup>2)</sup>	-	-	76	°C/W

1) Pulse test :  $t_p \leq 380 \mu s$ , Duty cycle  $\leq 2\%$

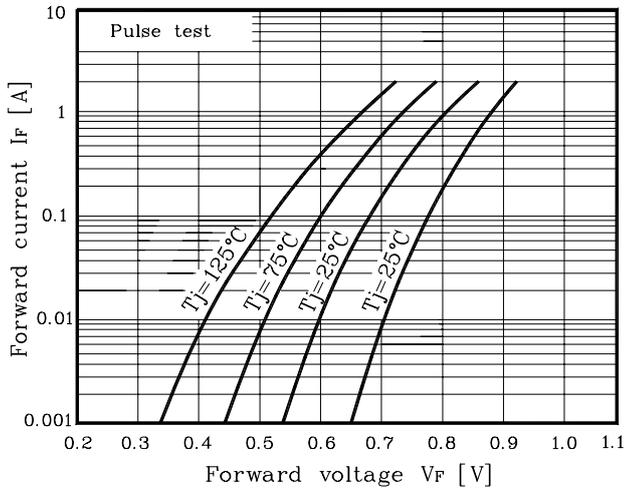
2) Device mounted on glass epoxy PCB (recommanderable minimum solder land)

※ Recommend PCB solder land [Unit : mm]

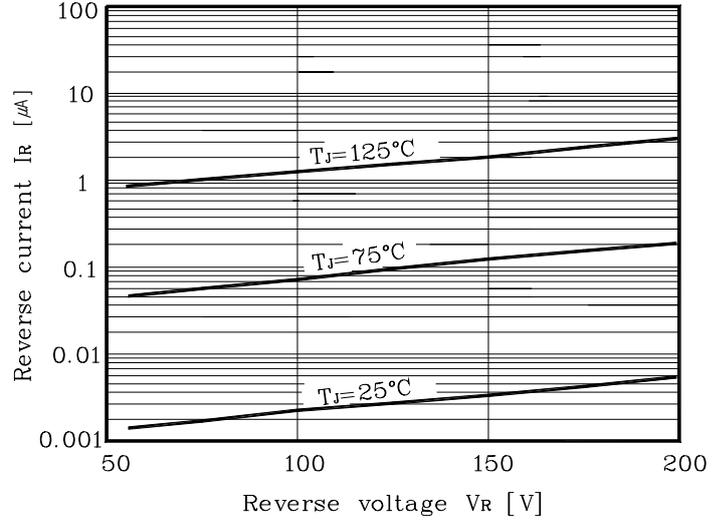


## Electrical Characteristic Curves

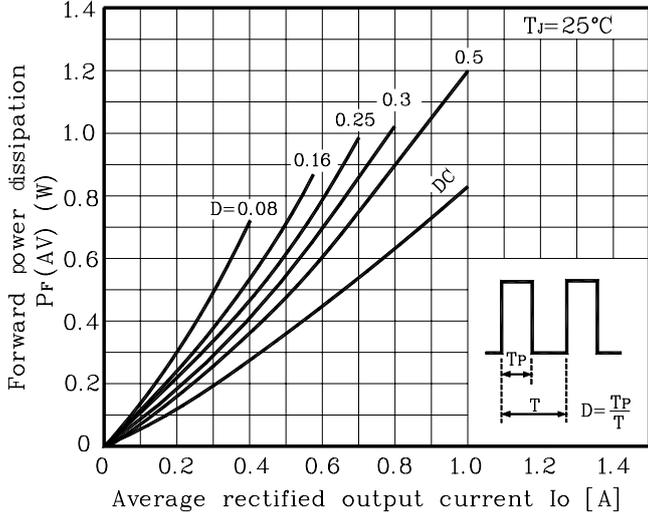
**Fig.1  $I_F - V_F$**



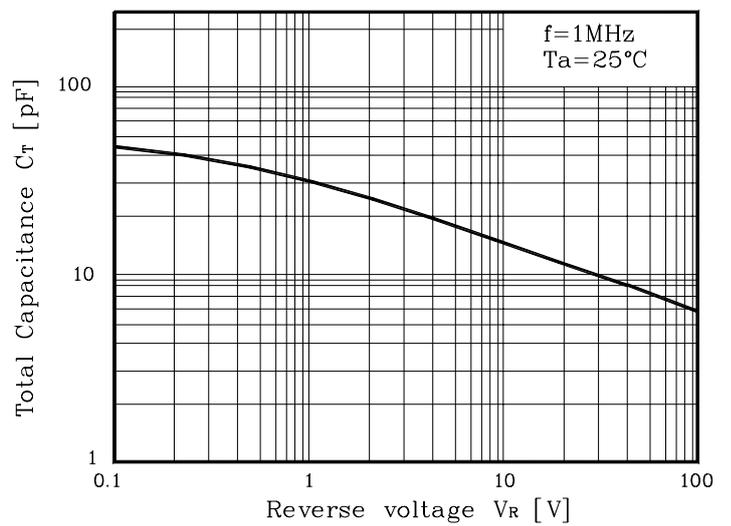
**Fig. 2  $I_R - V_R$**



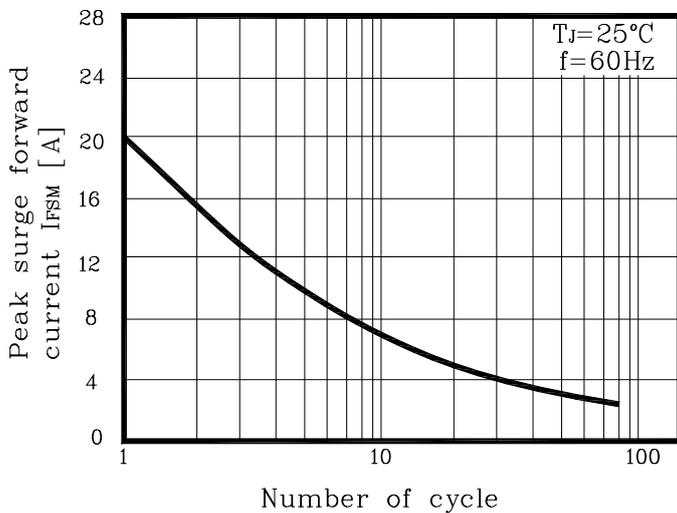
**Fig. 3  $P_F - I_O$**



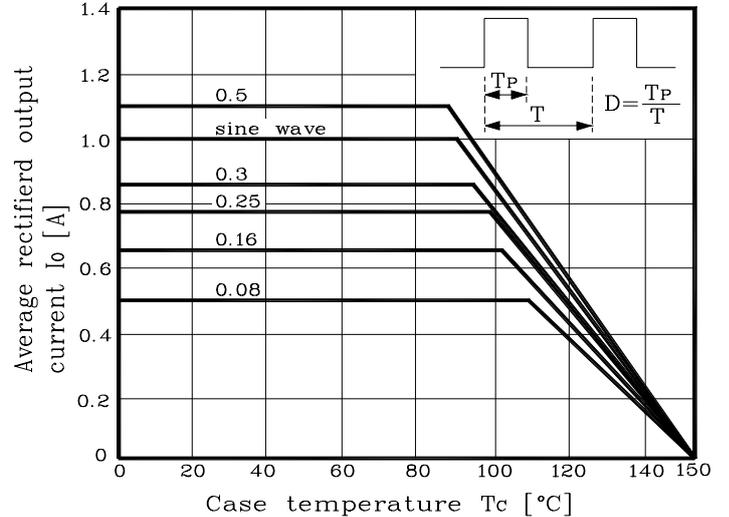
**Fig. 4  $C_J - V_R$**



**Fig. 5  $I_{FSM} - \text{Number of cycle}$**



**Fig. 6  $I_O$  derating -  $T_C$**



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