

Applications

- High speed switching and rectification
- Switching mode power supply

Features

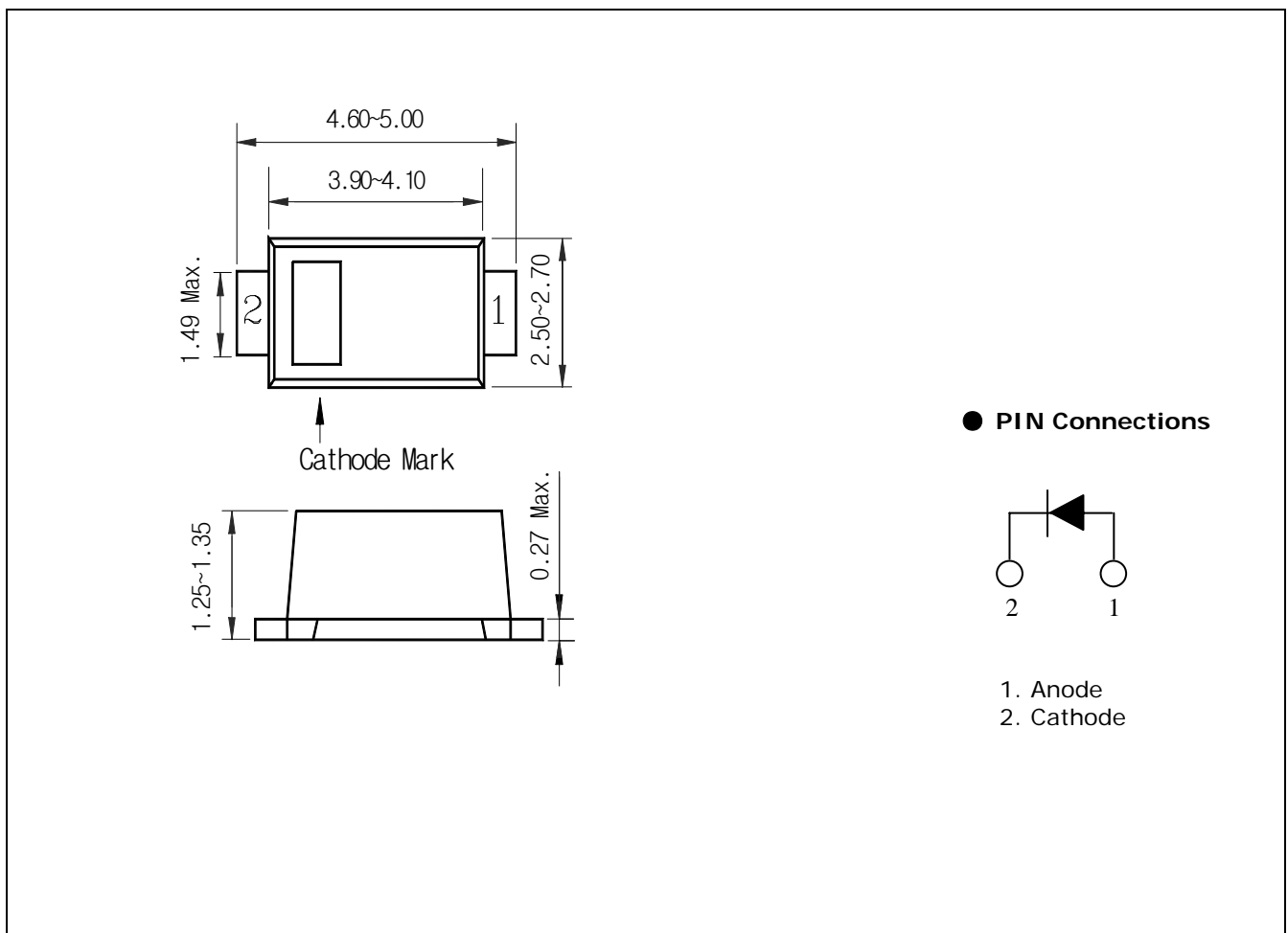
- Ultra-fast reverse recovery time: $t_{rr}=35\text{ns}$ Max.
- Small & compact type SMD package
- Low reverse current & low switching loss

Ordering Information

Type No.	Marking	Package Code
SF1A600H	1A6H	SOD-106

Outline Dimensions

unit : mm



Absolute Maximum Ratings

[Ta=25°C]

Characteristic	Symbol	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}	600	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

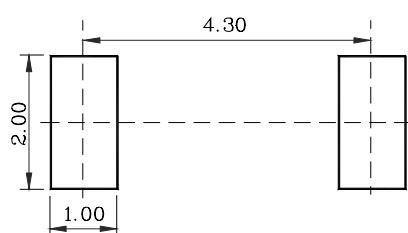
[Ta=25°C]

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Peak forward voltage	$V_{FM}^{1)}$	$I_F=1A$	-	1.45	1.7	V
Repetitive peak reverse current	I_{RRM}	$V_R=600V$	-	-	10	μA
Reverse recovery time	t_{rr}	$I_F=0.5A, di/dt=-100A/\mu s$	-	23	35	ns
Thermal resistance	R_{th}	Junction to ambient ²⁾	-	-	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 $I_F - V_F$

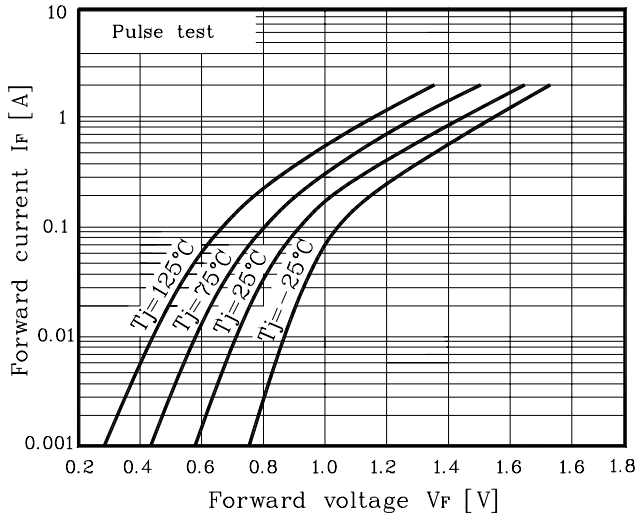


Fig. 2 $I_R - V_R$

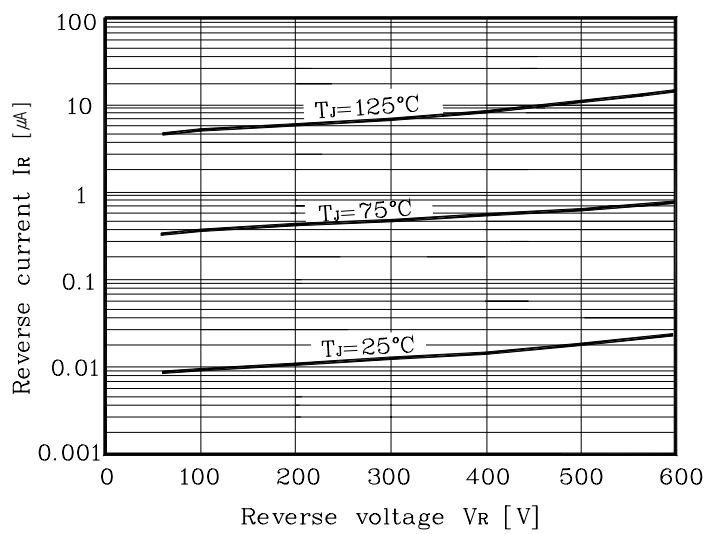


Fig. 3 $P_F - I_O$

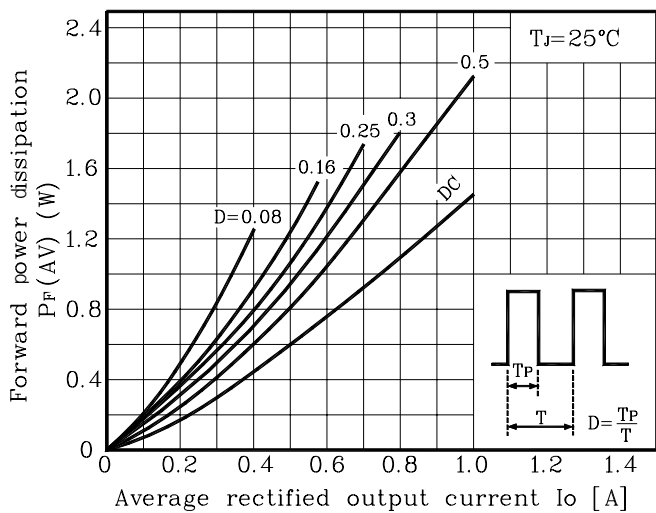


Fig. 4 $C_J - V_R$

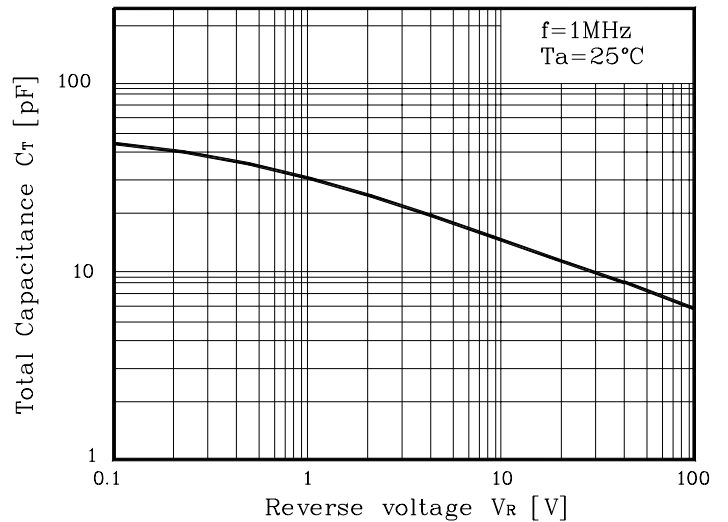


Fig. 5 $I_{FSM} - \text{Number of cycle}$

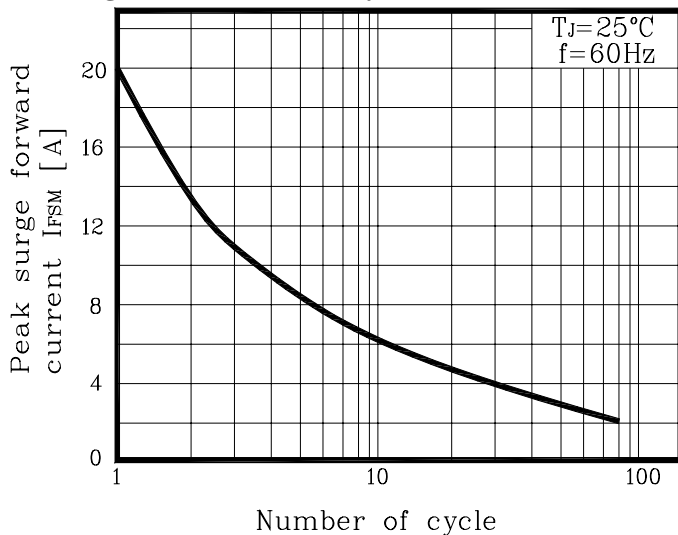
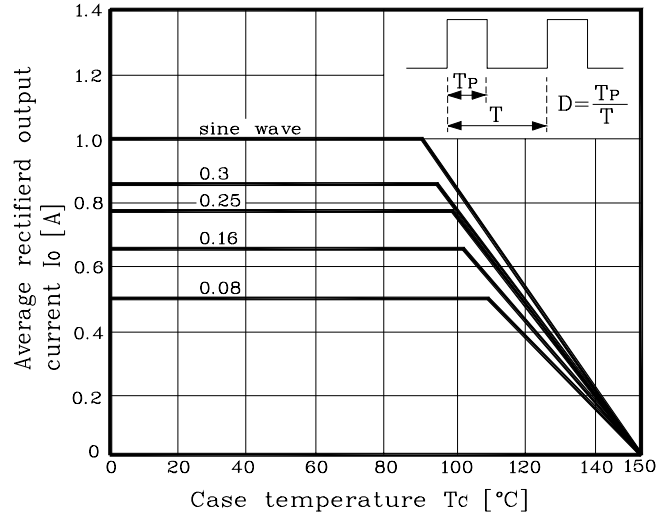


Fig. 6 I_O derating - T_C



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