AUK Semiconductor

SF1A600H

Ultra Fast Recovery Diode

Applications

- High speed switching and rectification
- Switching mode power supply

Features

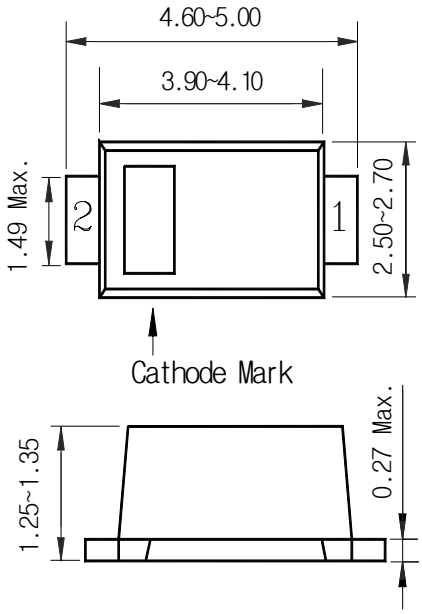
- Ultra-fast reverse recovery time: trr=35ns Max.
- Small & compact type SMD package
- Low reverse current & low switching loss

Ordering Information

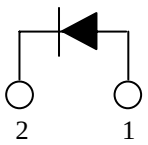
Type No.	Marking	Package Code
SF1A600H	1A6H	SOD-106

Outline Dimensions

unit : mm



● **PIN Connections**



1. Anode
2. Cathode

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

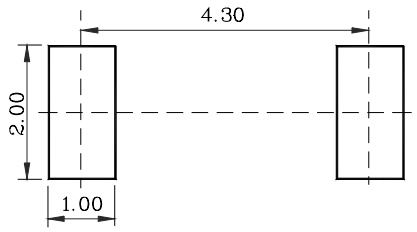
Electrical Characteristics [Ta=25°C]

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/μs	-	23	35	ns
Thermal resistance	R_{th}	Junction to ambient 2)	-	-	76	°C/W

1) Pulse test : $t_p \leq 380$ μs, Duty cycle ≤ 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

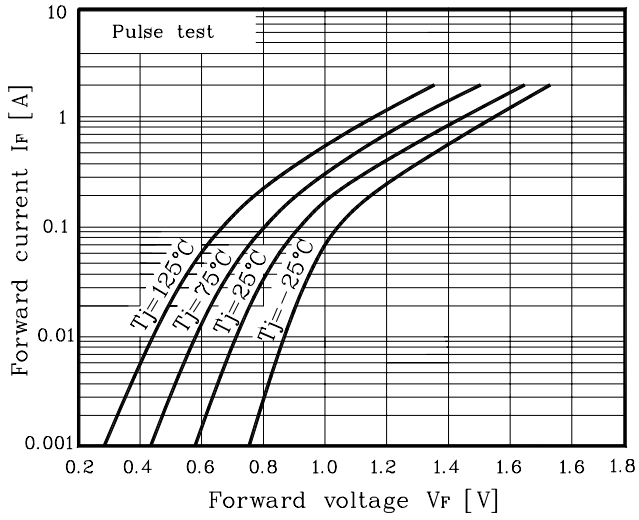


Fig. 2 I_R - V_R

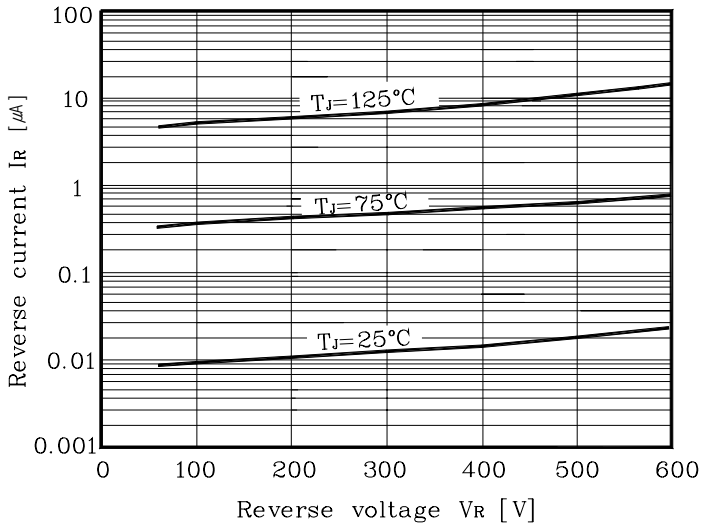


Fig. 3 P_F - I_O

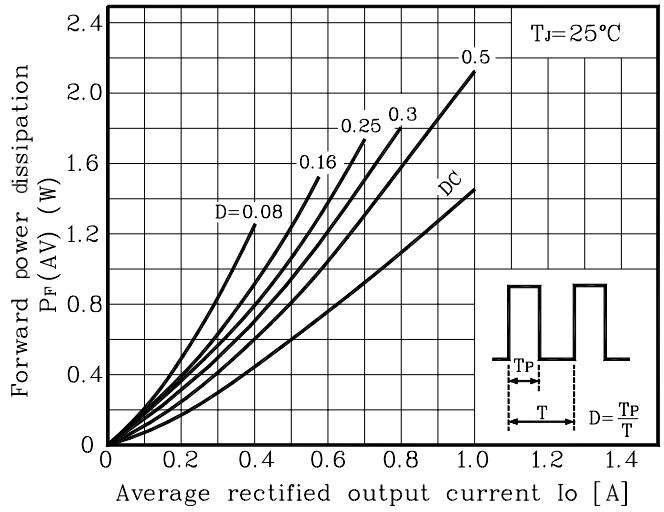


Fig. 4 C_J - V_R

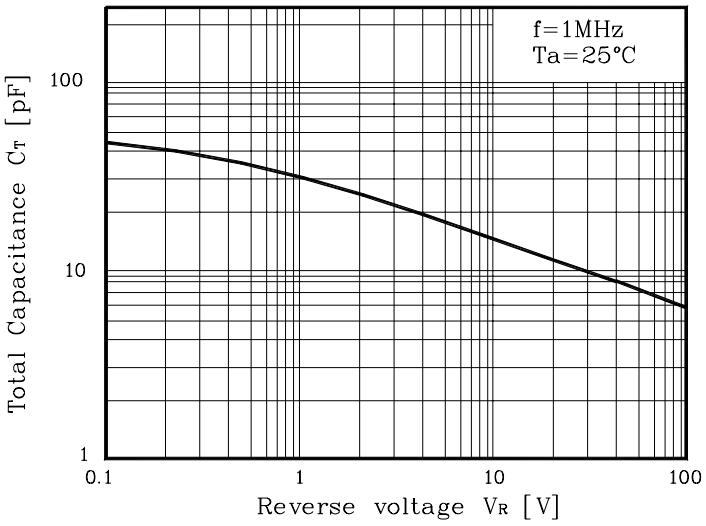


Fig. 5 I_{FSM} – Number of cycle

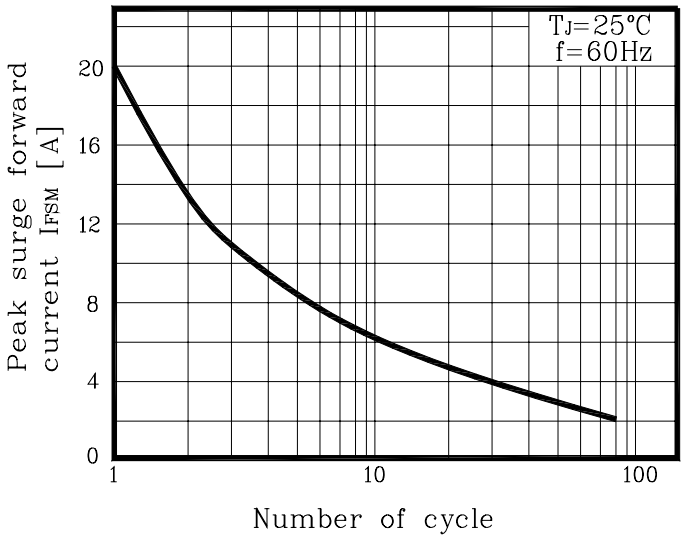
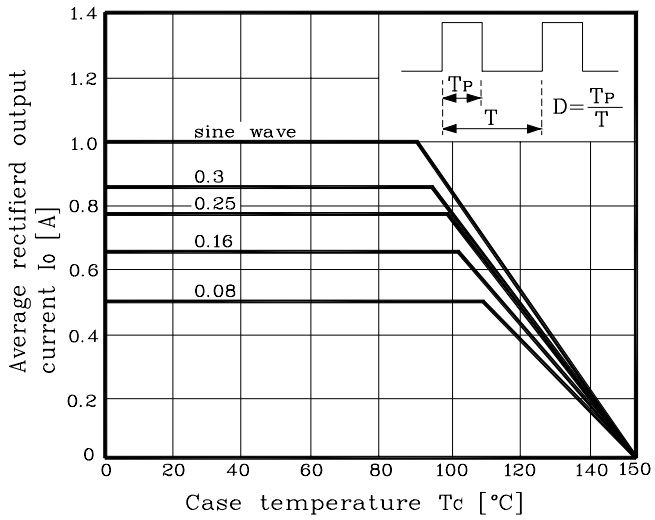


Fig. 6 I_O derating - T_C



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