

Applications

- High speed switching and rectification
- Switching mode power supply

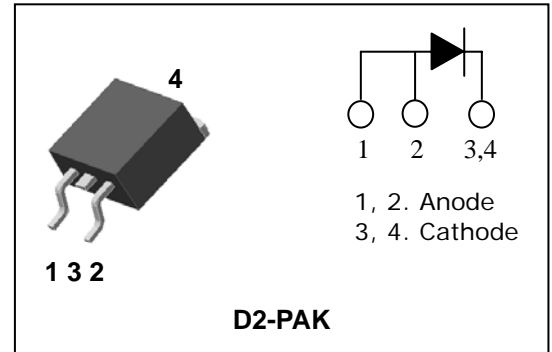
Features

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

Ordering Information

Type No.	Marking	Package Code
SF10A400HDS	SF10A400HDS	D2-PAK

PIN Connection



Absolute Maximum Ratings

[T_c=25°C]

Characteristic	Symbol	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}	400	V
Average rectified output current	I_O	10	A
Peak forward surge current (Non-repetitive 60Hz sine wave)	I_{FSM}	120	A
Junction temperature	T_J	150	°C
Storage temperature range	T_{stg}	-45 ~ 150	°C

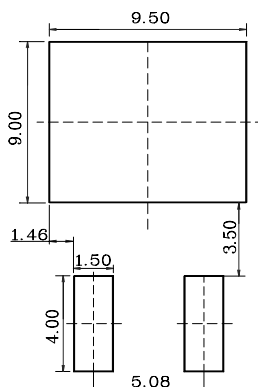
Electrical Characteristics

[T_c=25°C]

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward voltage	$V_F^{1)}$	T _c =25 °C	-	-	1.4	V
		T _c =125 °C	-	-	1.3	
Reverse current	$I_R^{1)}$	T _c =25 °C	-	-	20	μA
		T _c =125 °C	-	-	200	
Reverse recovery time	t_{rr}	$I_F=1\text{A}$, $di/dt=-100\text{A}/\mu\text{s}$	-	-	30	ns
Thermal resistance	R_{th}	Junction to case	-	-	3.0	°C/W

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

※ Recommend PCB solder land [Unit: mm]



Electrical Characteristic Curves

Fig.1 $I_F - V_F$

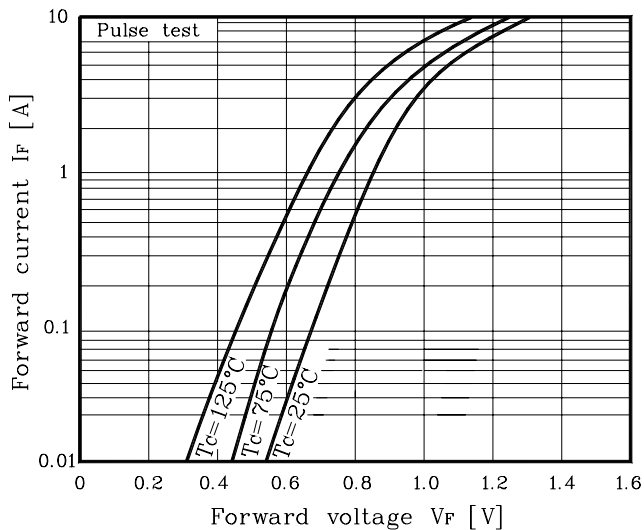


Fig. 2 $I_R - V_R$

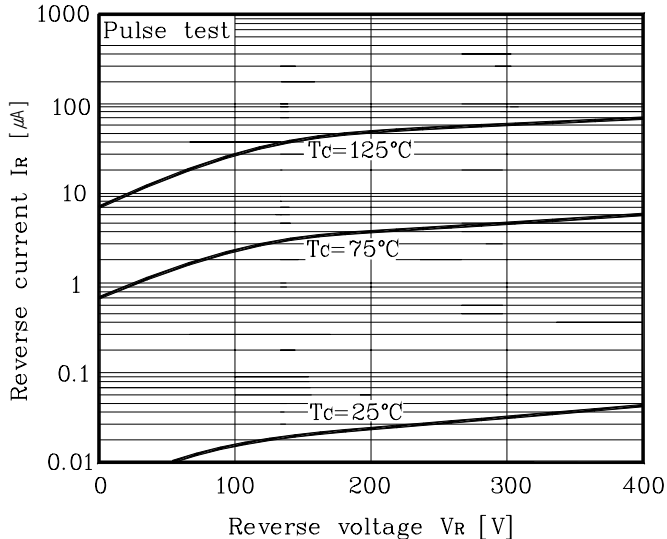


Fig. 3 $P_F - I_O$

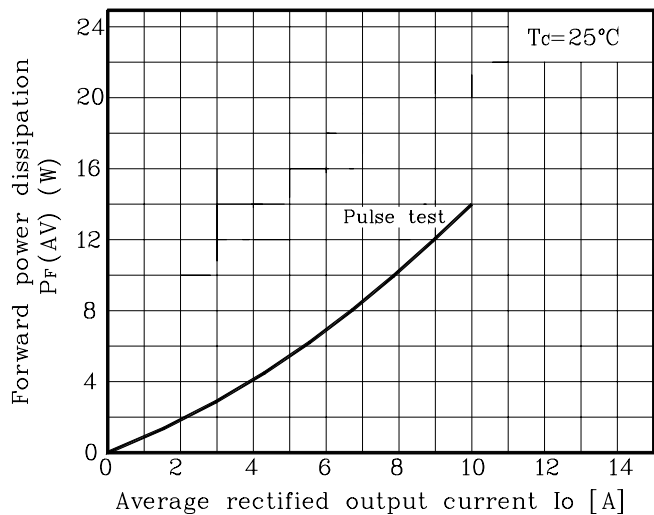


Fig. 4 $C_T - V_R$

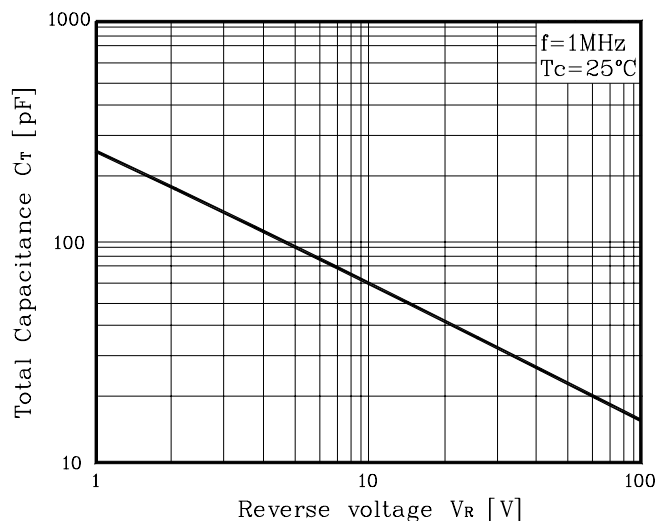


Fig. 5 $I_{FSM} - \text{Number of cycle}$

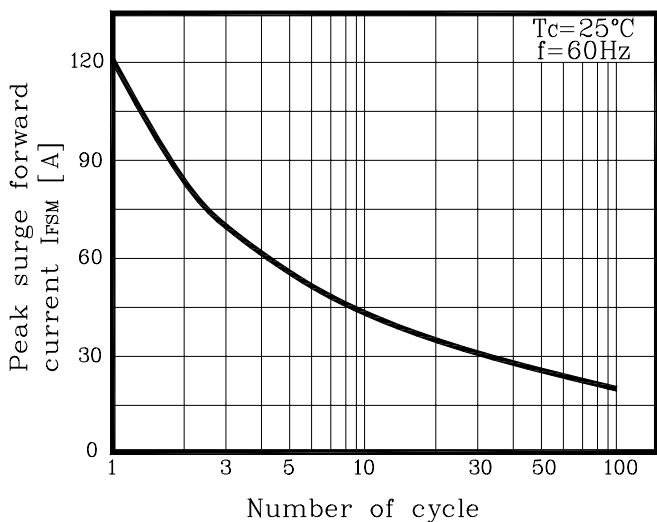
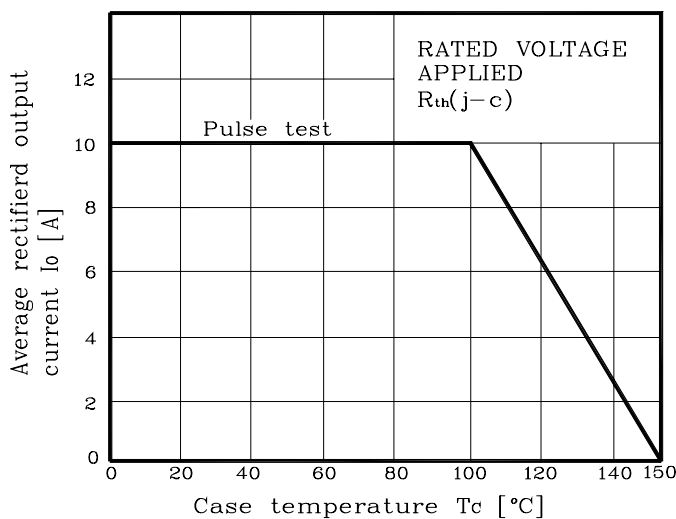
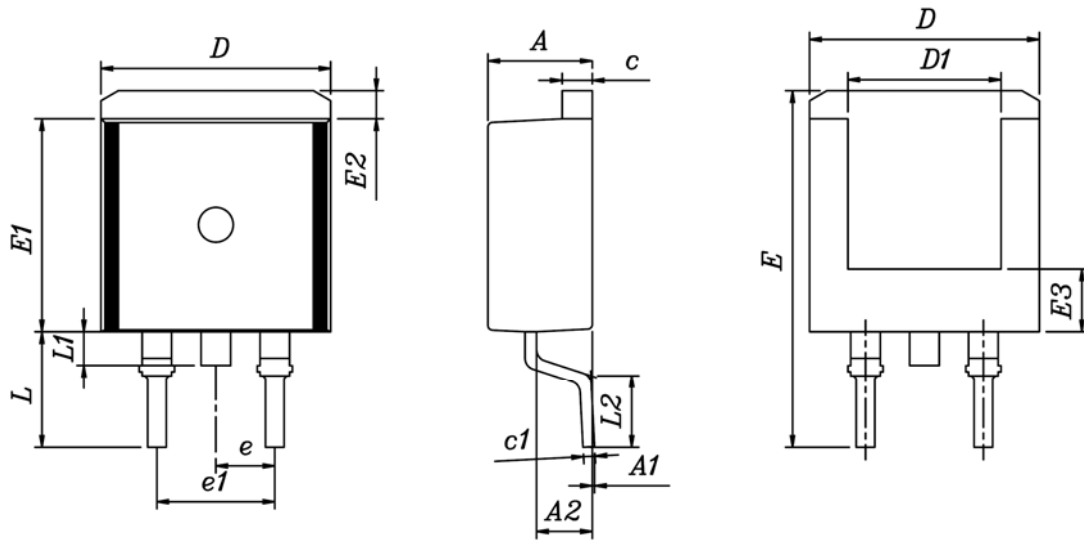


Fig. 6 I_O derating - T_c



Outline Dimension (mm)



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	4.35	4.50	4.65	
A1	—	—	0.15	
A2	2.20	2.40	2.60	
c	1.20	1.30	1.40	
c1	0.40	0.50	0.60	
D	9.80	10.00	10.20	
D1	6.40	6.60	6.80	
E	15.00	15.40	15.80	
E1	9.05	9.20	9.35	
E2	1.00	1.20	1.40	
E3	2.50	2.70	2.90	
e	2.34	2.54	2.74	
e1	4.88	5.08	5.28	
L	4.60	5.00	5.40	
L1	1.40	1.45	1.50	
L2	2.50	—	—	

NOTE

1. THESE DIMENSIONS DO NOT INCLUDE MOLD FLASH AND GATE BURR

The AUK Corp. products are intended for the use as components in general electronic equipment (Office and communication equipment, measuring equipment, home appliance, etc.).

Please make sure that you consult with us before you use these AUK Corp. products in equipments which require high quality and / or reliability, and in equipments which could have major impact to the welfare of human life(atomic energy control, airplane, spaceship, transportation, combustion control, all types of safety device, etc.). AUK Corp. cannot accept liability to any damage which may occur in case these AUK Corp. products were used in the mentioned equipments without prior consultation with AUK Corp..

Specifications mentioned in this publication are subject to change without notice.