KODENSHI AUK

SF10A400HDS

Ultra Fast Recovery Diode

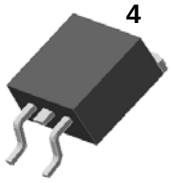
Applications

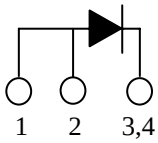
- High speed switching and rectification
- Switching mode power supply

Features

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

PIN Connection





1, 2. Anode
3, 4. Cathode

D2-PAK

Ordering Information

Type No.	Marking	Package Code
SF10A400HDS	SF10A400HDS	D2-PAK

Absolute Maximum Ratings [Tc=25°C]

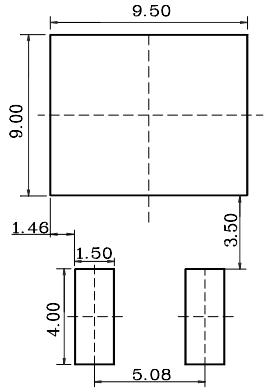
Characteristic	Symbol	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}	400	V
Average rectified output current	I_O	10	A
Peak forward surge current (Non-repetitive 60Hz sine wave)	I_{FSM}	120	A
Junction temperature	T_J	150	°C
Storage temperature range	T_{stg}	-45 ~ 150	°C

Electrical Characteristics [Tc=25°C]

Characteristic	Symbol	Test Condition		Min.	Typ.	Max.	Unit
Forward voltage	V_F 1)	Tc=25℃	I_F=10A	-	-	1.4	V
		Tc=125℃		-	-	1.3	
Reverse current	I_R 1)	Tc=25℃	V_R=400V	-	-	20	μA
		Tc=125℃				200	
Reverse recovery time	t_{rr}	I_F=1A, di/dt=-100A/μs		-	-	30	ns
Thermal resistance	R_{th}	Junction to case		-	-	3.0	°C/W

1) Pulse test : $t_p \leq 380$ μs, Duty cycle ≤ 2%

※ Recommend PCB solder land [Unit: mm]



Electrical Characteristic Curves

Fig.1 I_F - V_F

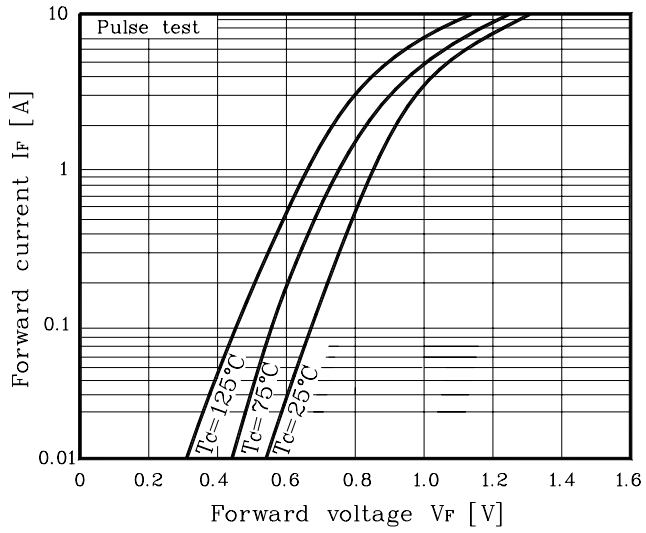


Fig. 2 I_R - V_R

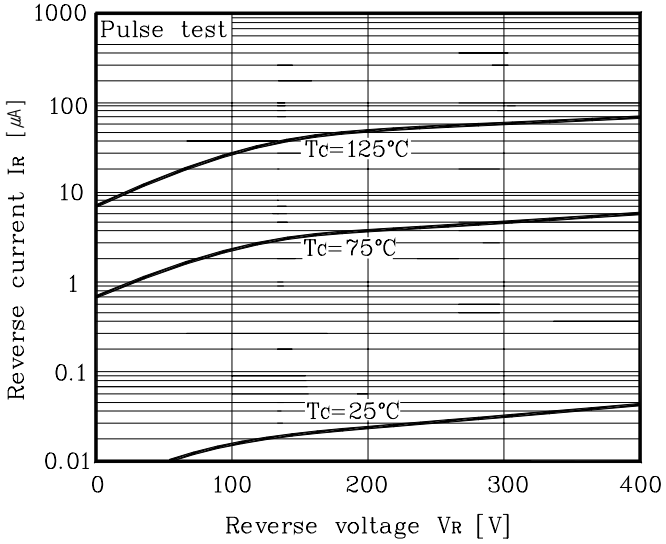


Fig. 3 P_F - I_O

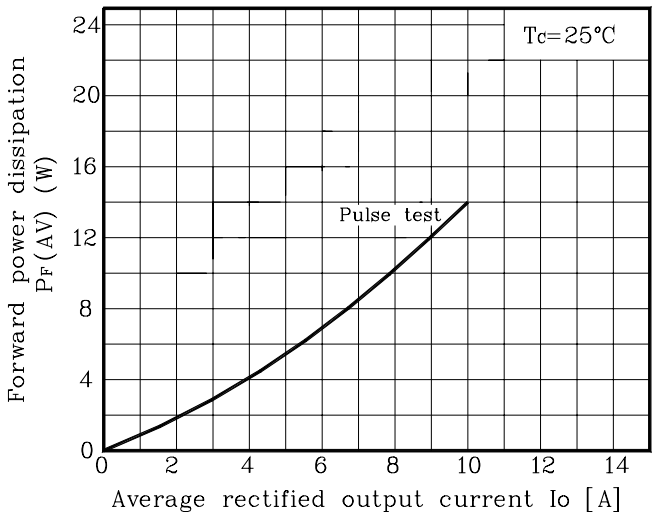


Fig. 4 C_T - V_R

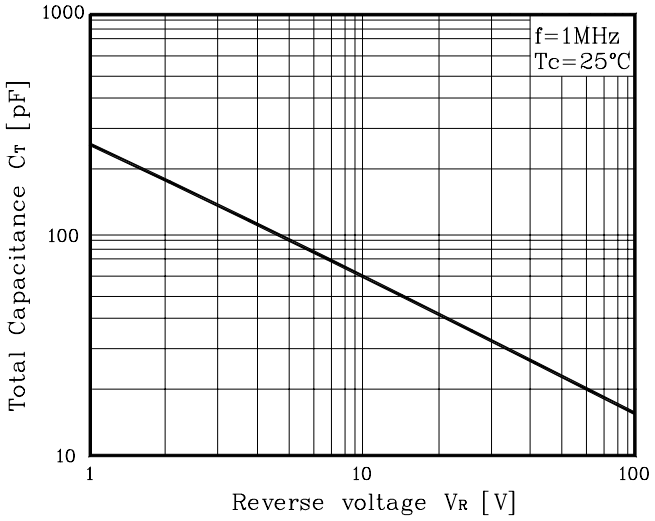


Fig. 5 I_{FSM} – Number of cycle

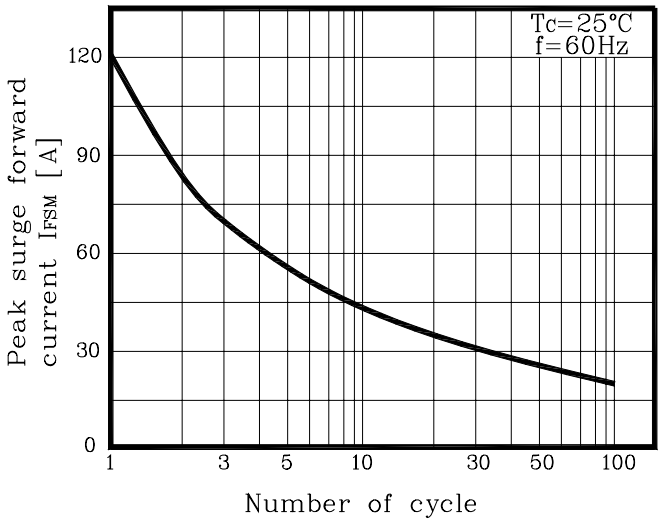
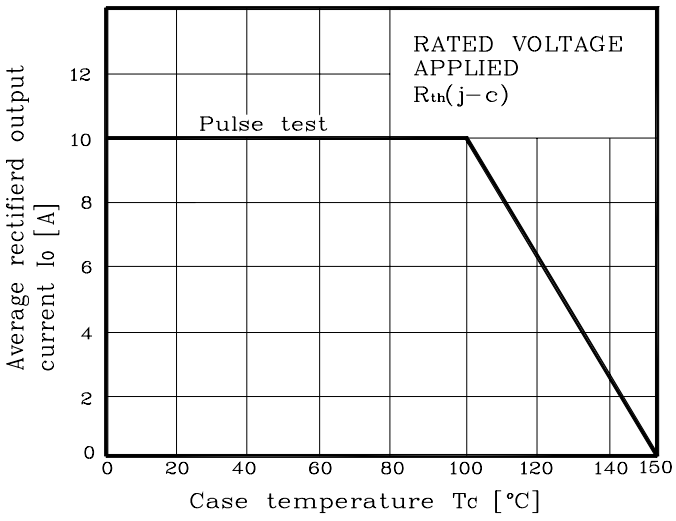
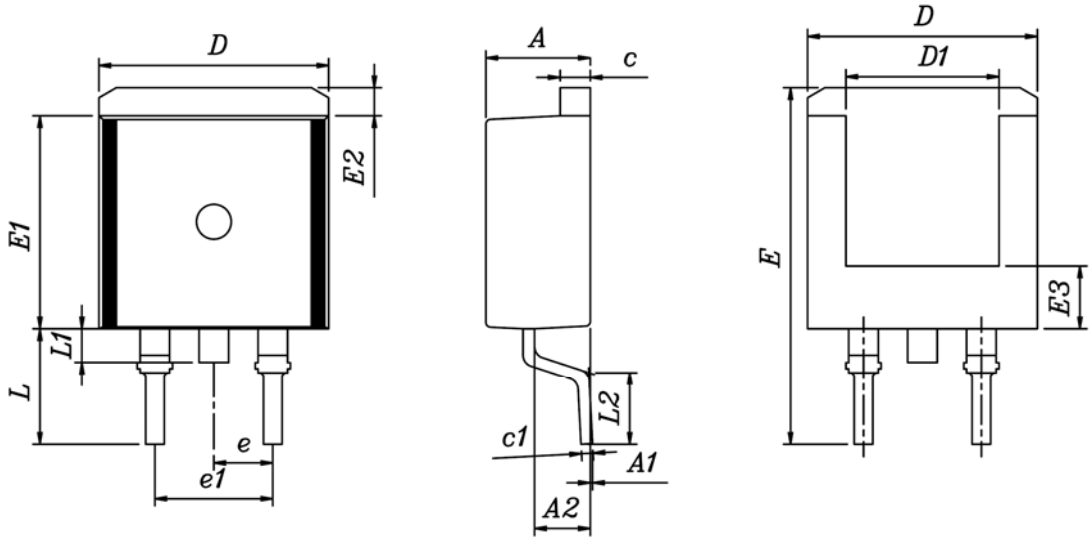


Fig. 6 I_O derating - T_C



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

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