D1FK120

Fast Recovery Diodes
1200V, 1A

Feature

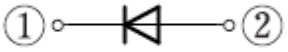
- Small SMD
- High Voltage
- Low Noise
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): 1F
Package (JEDEC Code): DO-214AC



Equivalent circuit



Absolute Maximum Ratings (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings	Unit
Storage temperrature	Tstg		-55 to 150	℃
Junction temperature	Tj		-55 to 150	℃
Repetitive peak reverse voltage	V_{RRM}		1200	V
Average forward current	I_F(AV)	50Hz sine wave, Resistance load, Tl=75°C	1	A
Average forward current	I_F(AV)	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※	0.36	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle, Peak value, Tj=25°C	20	A

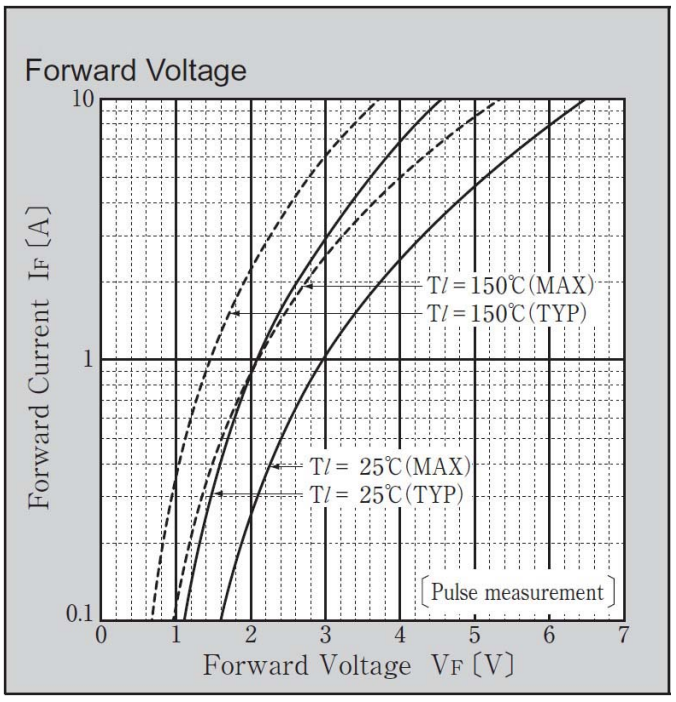
※ ：See the original Specifications

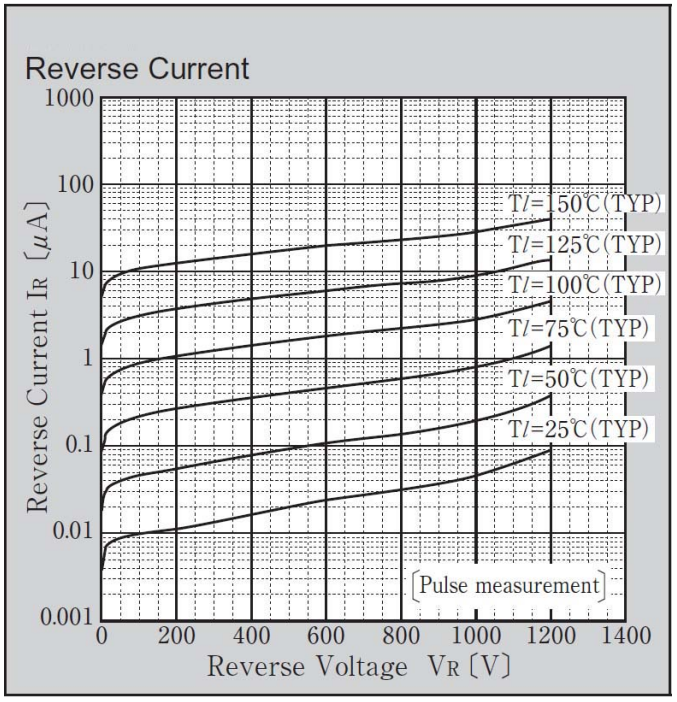
Electrical Characteristics (unless otherwise specified : Tl=25°C)

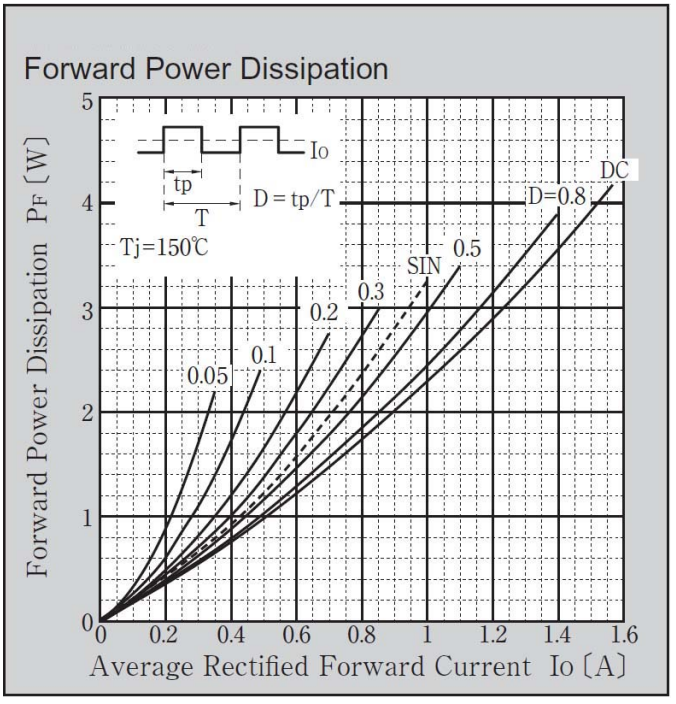
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=1A, Pulse measurement			3	V
Reverse current	I_R	VR=1200V, Pulse measurement			10	μA
Reverse recovery time	trr	IF=0.5A, IR=1.0A, 0.25IR			120	ns
Total capacitance	Ct	f=1MHz, VR=10V		5.8		pF
Thermal resistance	Rth(j-l)	Junction to lead			23	°C/W
Thermal resistance	Rth(j-a)	Junction to ambient, On glass-epoxy substrate ※			157	°C/W

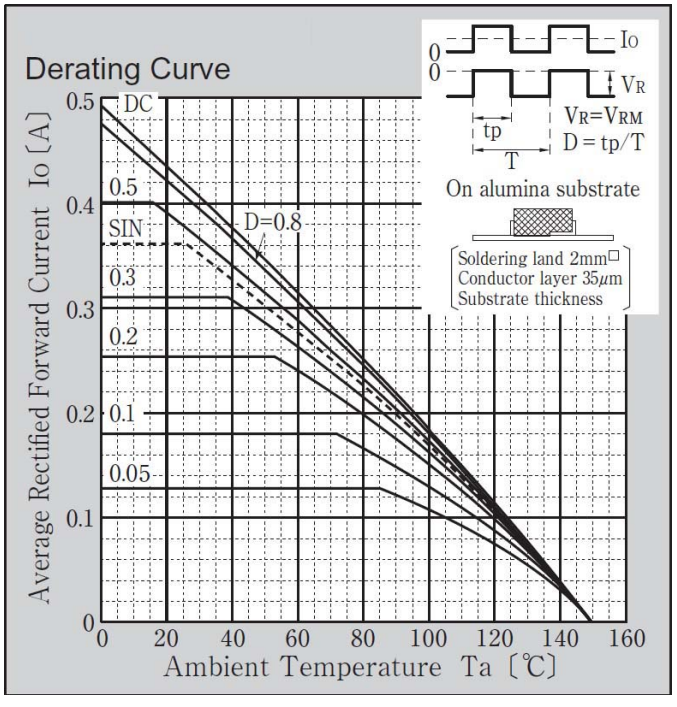
※ ：See the original Specifications

CHARACTERISTIC DIAGRAMS

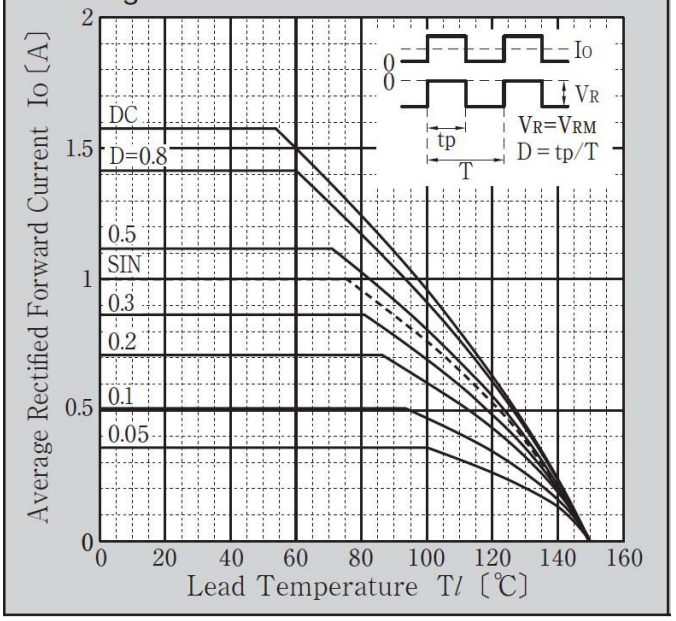




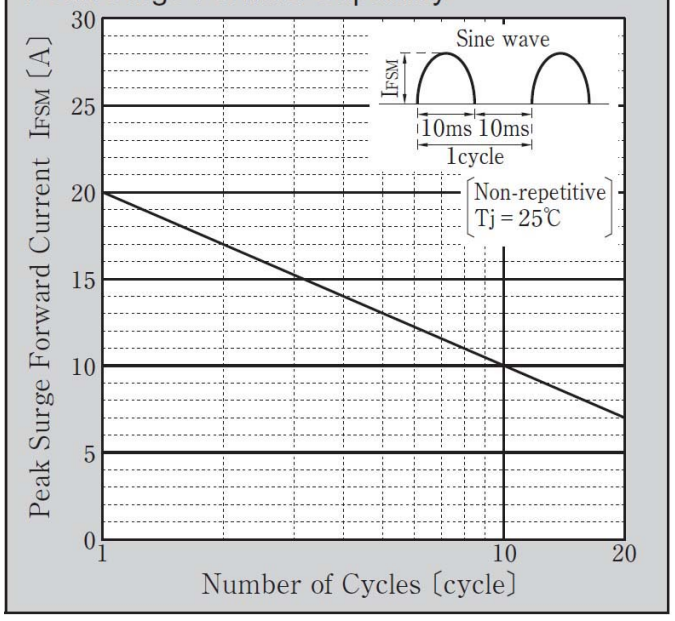




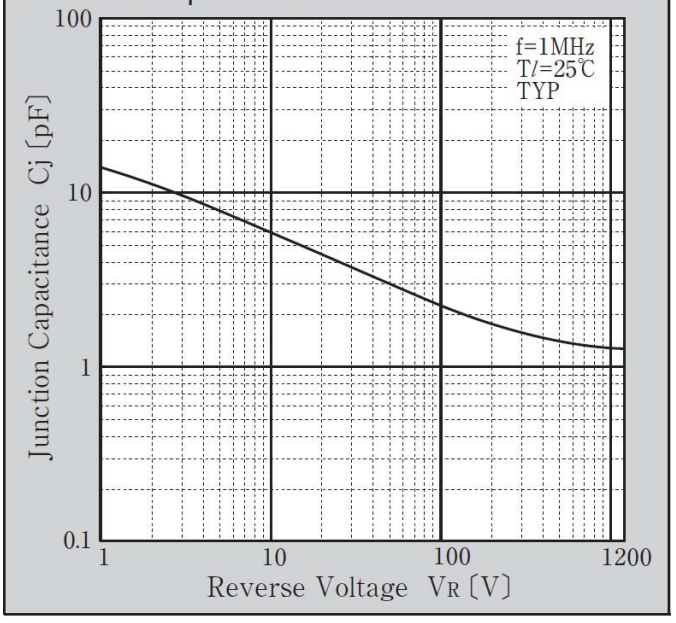
Derating Curve



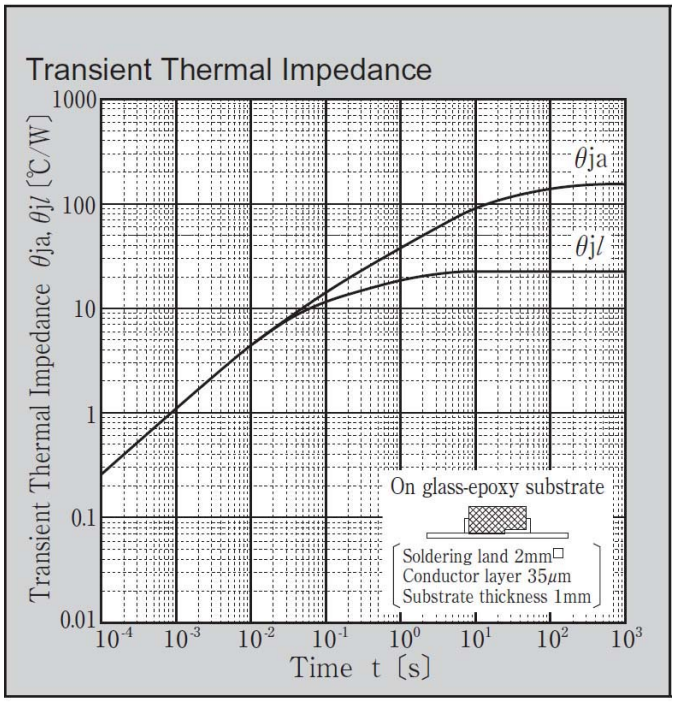
Peak Surge Forward Capability

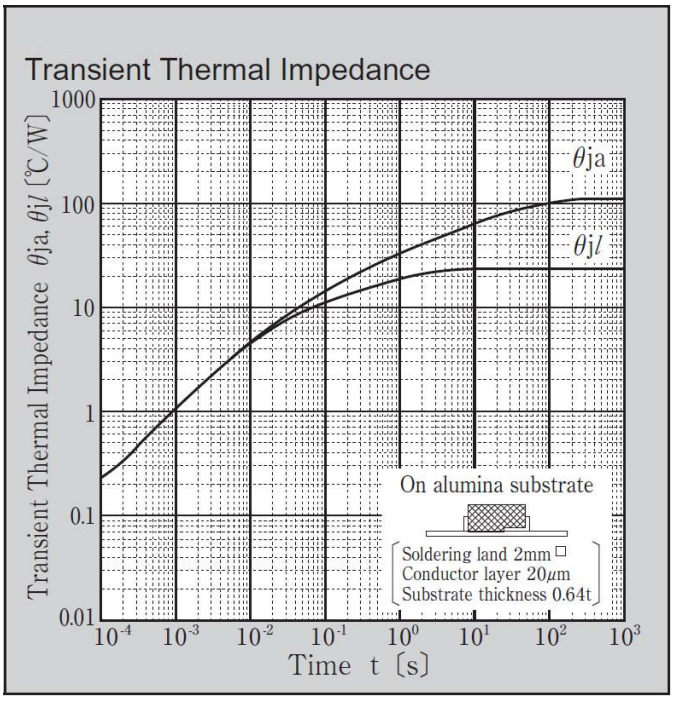


Junction Capacitance



Transient Thermal Impedance




Transient Thermal Impedance
Transient Thermal Impedance θja, θjl (℃/W)
1000
100
10
1
0.1
0.01
θja
θjl
On alumina substrate
Soldering land 2mm □
Conductor layer 20μm
Substrate thickness 0.64t
10-4
10-3
10-2
10-1
100
101
102
103
Time t (s)

Outline Dimensions

unit:mm

B3

JEDEC Code	DO-214AC
JEITA Code	–
House Name	1F, CF

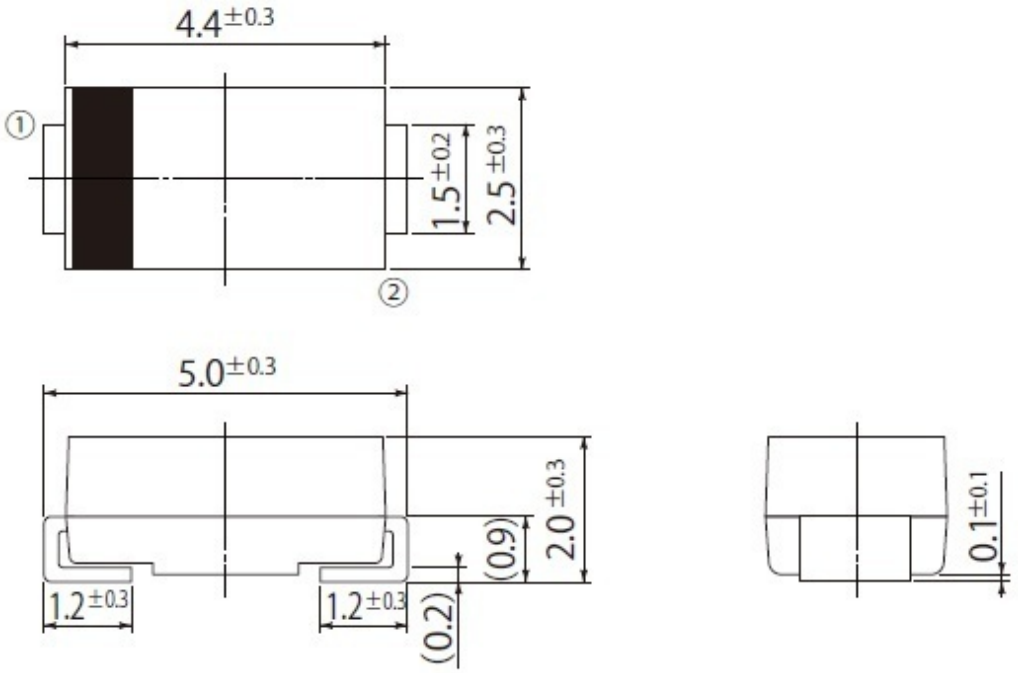
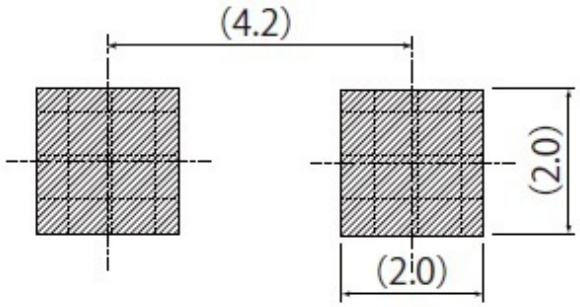


Fig. B3-1 ① ②



Referential Soldering Pad

- Optimize soldering pad to the board design and soldering condition.

- The content specified herein is subject to change for improvement without notice.
- If you wish to use any such products, please be sure to refer to the specifications.

U182-1 (2026.08)

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   Computers, office automation and other office equipment, communication terminals, test and measurement equipment, audio/visual equipment, amusement equipment, consumer electronics, machine tools, personal electronic equipment, industrial equipment, etc.
   【Special applications】
   Transportation equipment (vehicles, ships, etc.), trunk-line communication equipment, traffic signal control systems, anti-disaster/crime systems, safety equipment, medical equipment, etc.
   【Specific applications】
   Nuclear reactor control systems, aircraft, aerospace equipment, submarine repeaters, life support equipment and systems, etc.
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