

# D1FK120

## Fast Recovery Diodes 1200V, 1A

### Feature

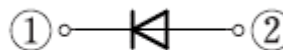
- Small SMD
- High Voltage
- Low Noise
- Pb free terminal
- RoHS:Yes

### 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 temperature	T <sub>stg</sub>		-55 to 150	°C
Junction temperature	T <sub>j</sub>		-55 to 150	°C
Repetitive peak reverse voltage	V <sub>RRM</sub>		1200	V
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, Tl=75°C	1	A
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※	0.36	A
Surge forward current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1 cycle, Peak value, Tj=25°C	20	A

※ :See the original Specifications

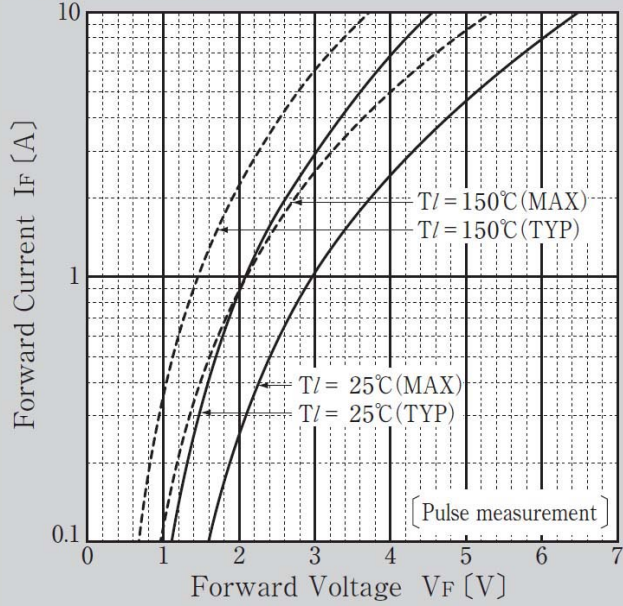
**Electrical Characteristics** (unless otherwise specified : Tl=25°C)

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	$\mu$ A
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

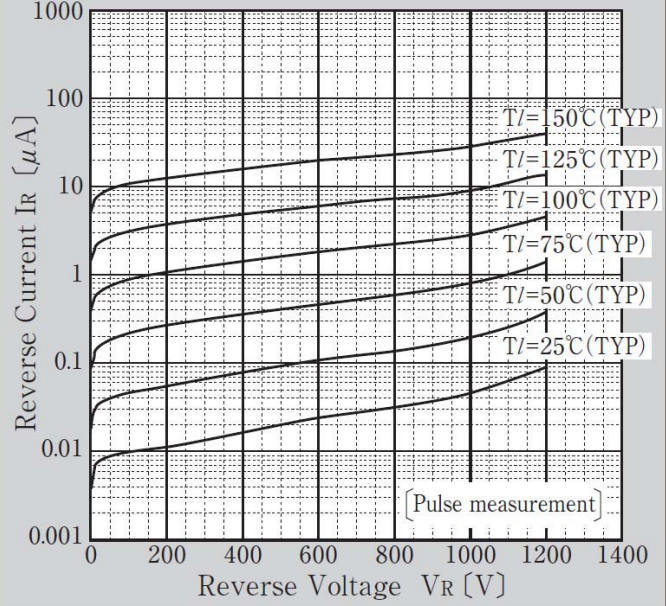
※ :See the original Specifications

# CHARACTERISTIC DIAGRAMS

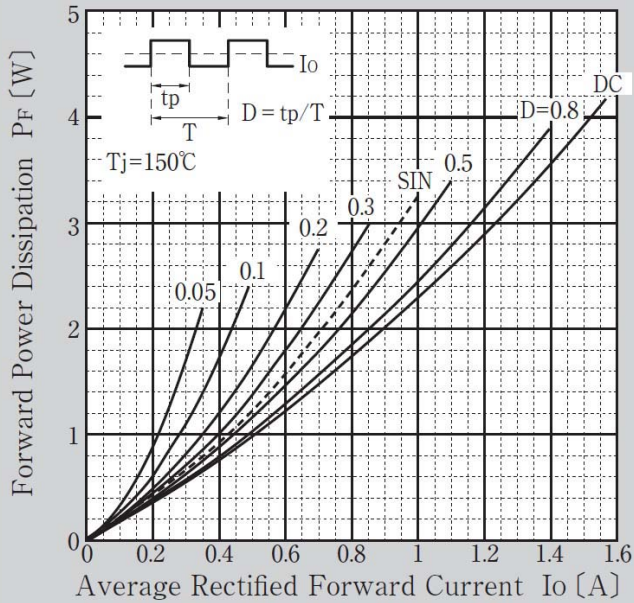
### Forward Voltage



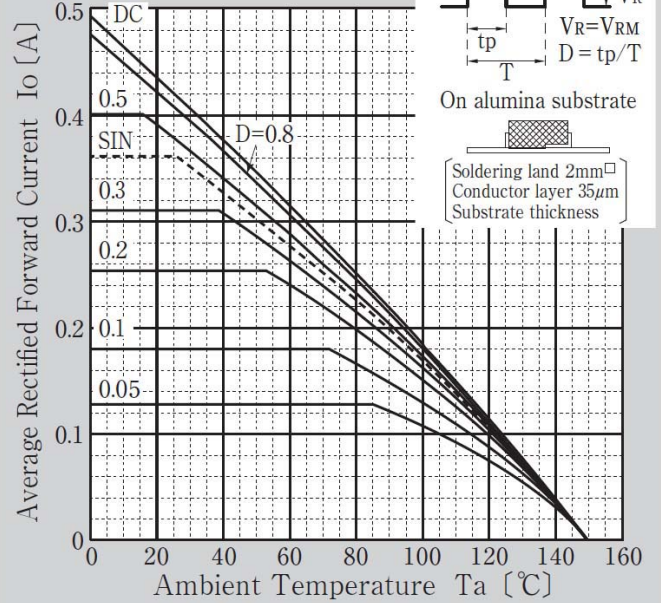
### Reverse Current



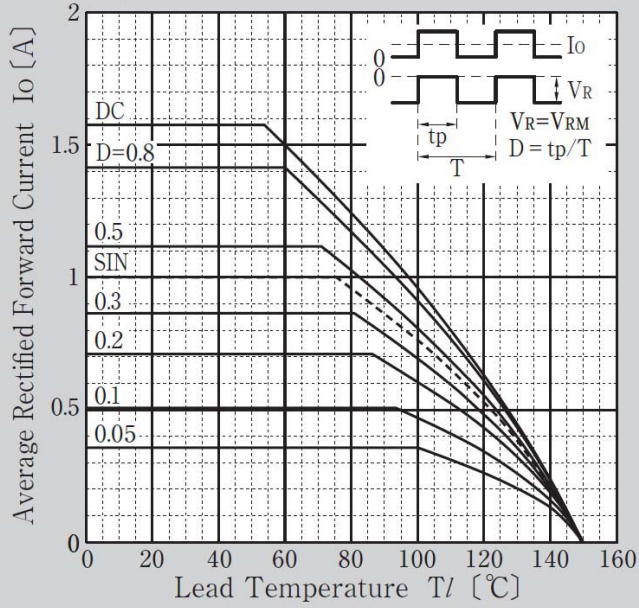
### Forward Power Dissipation



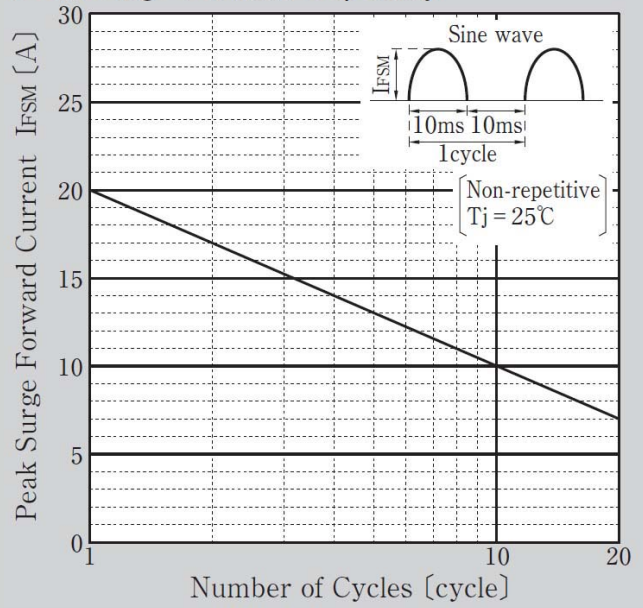
### Derating Curve



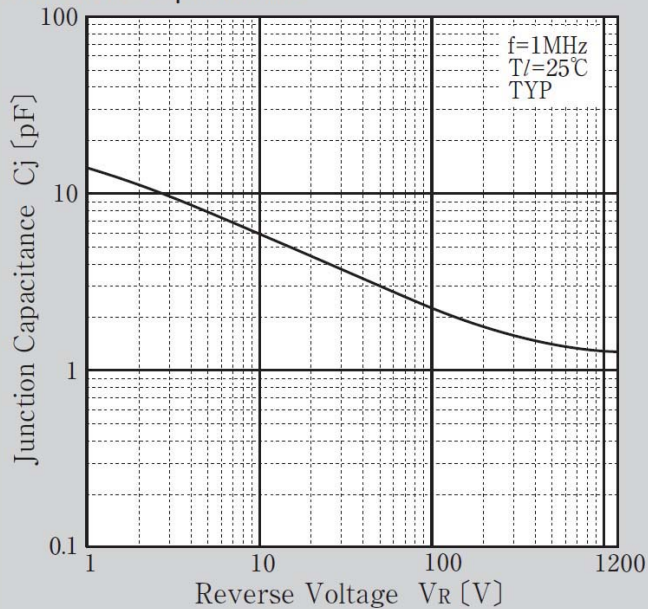
Derating Curve



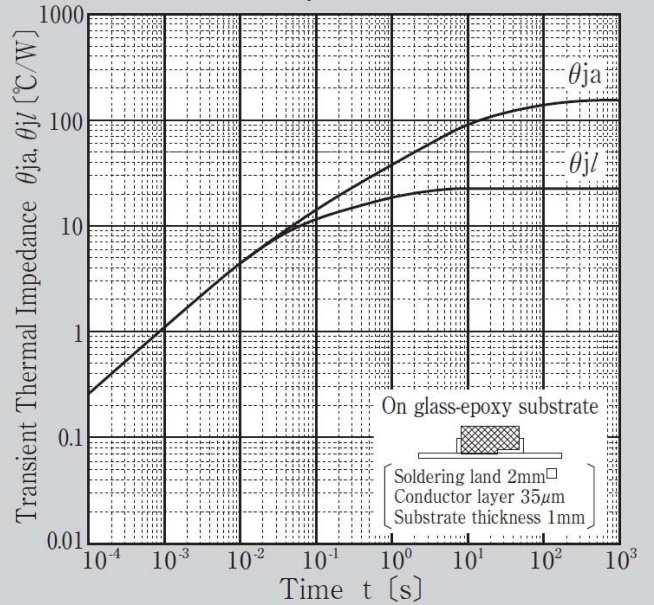
Peak Surge Forward Capability



Junction Capacitance

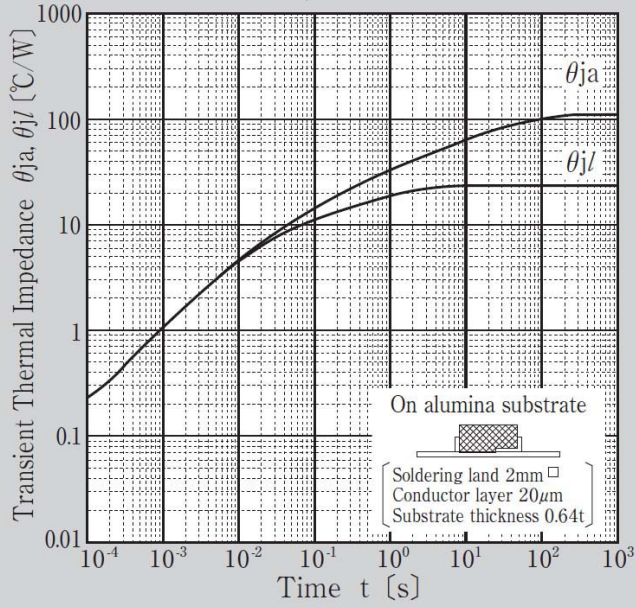


Transient Thermal Impedance



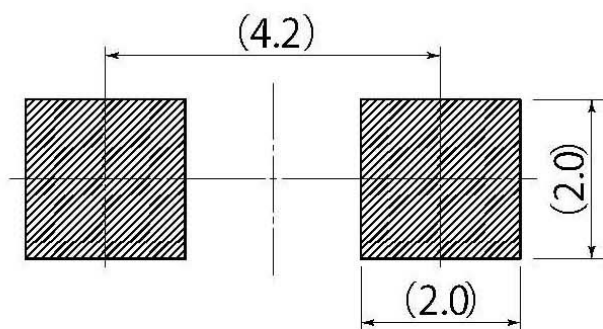
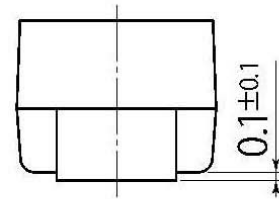
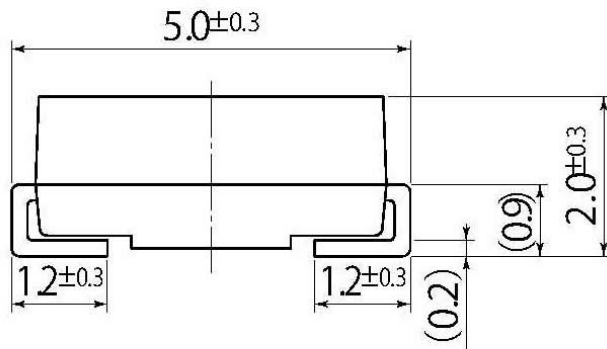
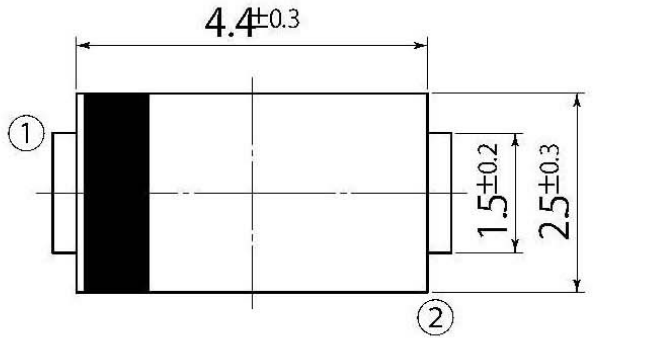


### Transient Thermal Impedance



B3

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



Referential Soldering Pad

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

## Notes

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