

# D1FK70

## Fast Recovery Diodes

700V, 0.8A

### Feature

- Small SMD
- High Voltage
- Low Noise
- Based on AEC-Q101
- Pb free terminal
- RoHS:Yes

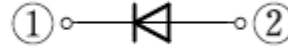
### OUTLINE

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>		700	V
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, On alumina substrate, Ta=32°C ※	0.8	A
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=33°C ※	0.6	A
Surge forward current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1 cycle, Peak value, T <sub>j</sub> =25°C	25	A

※ :See the original Specifications

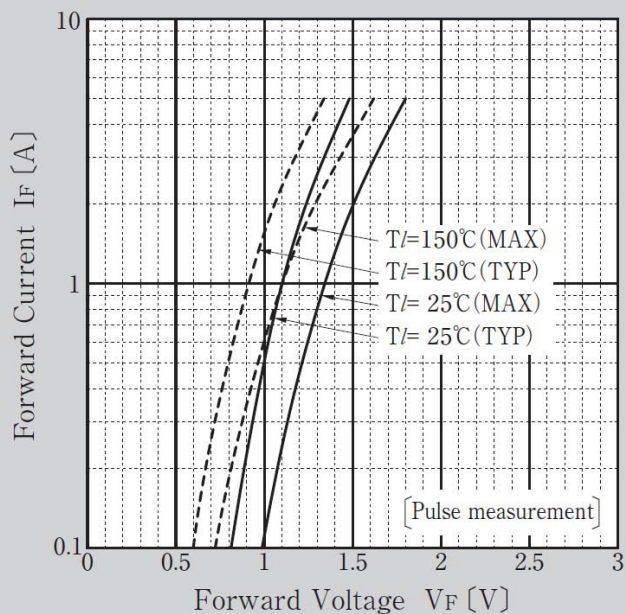
**Electrical Characteristics** (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	$V_F$	$I_F=0.8A$ , Pulse measurement			1.3	V
Reverse current	$I_R$	$V_R=700V$ , Pulse measurement			10	$\mu A$
Reverse recovery time	$t_{rr}$	$I_F=0.5A$ , $I_R=1.0A$ , $0.1I_R$			400	ns
Total capacitance	$C_t$	$f=1MHz$ , $V_R=10V$		7		pF
Thermal resistance	$R_{th(j-l)}$	Junction to lead			23	$^{\circ}C/W$
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On alumina substrate ※			108	$^{\circ}C/W$
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On glass-epoxy substrate ※			157	$^{\circ}C/W$

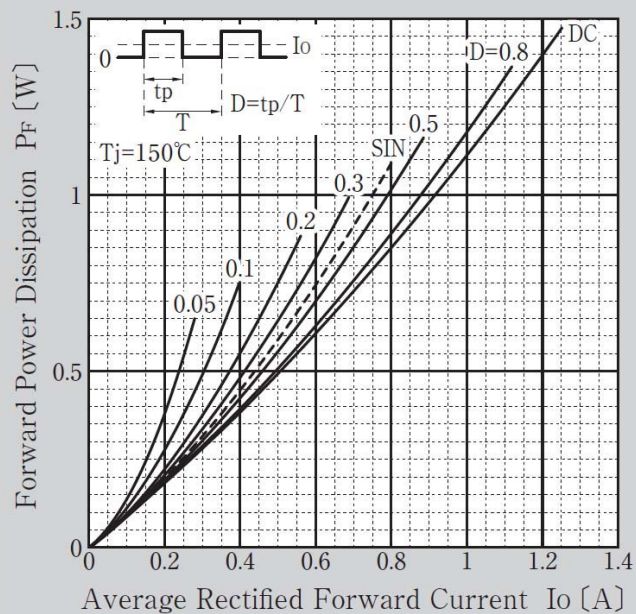
※ :See the original Specifications

# CHARACTERISTIC DIAGRAMS

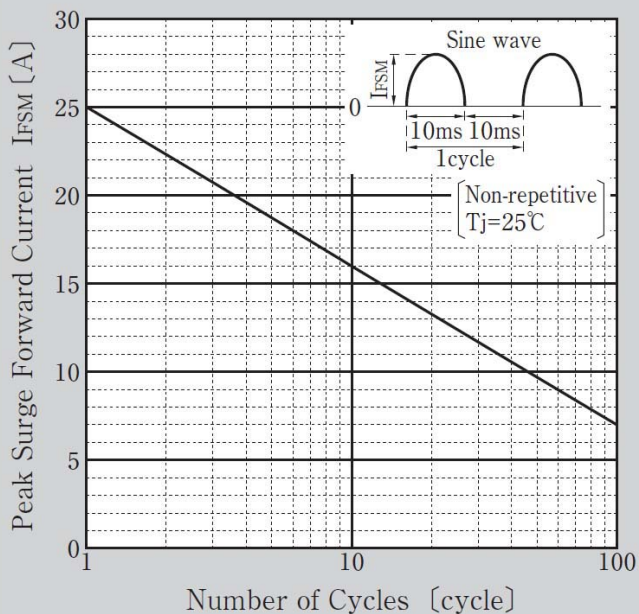
### Forward Voltage



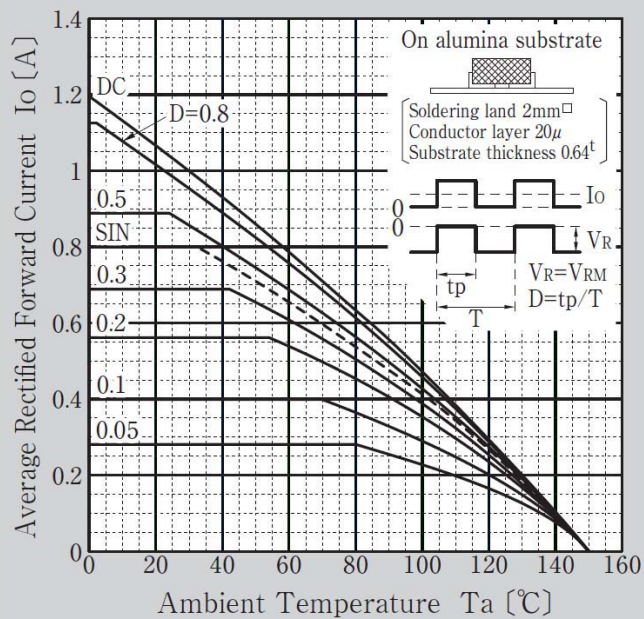
### Forward Power Dissipation



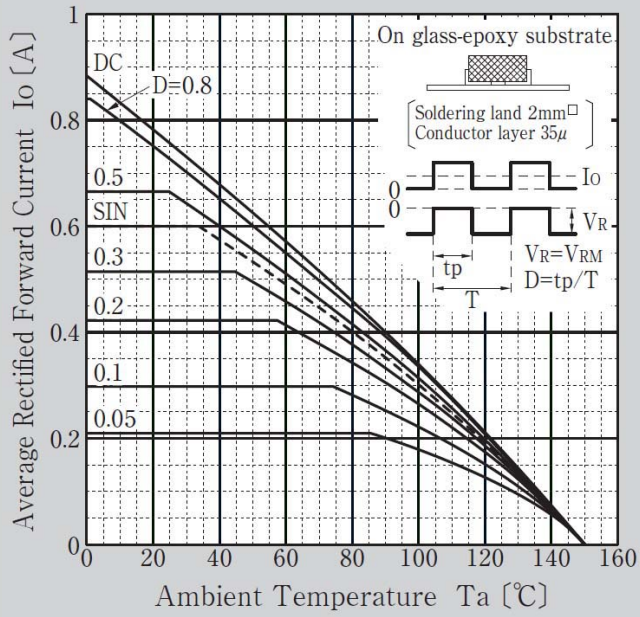
### Peak Surge Forward Current Capability



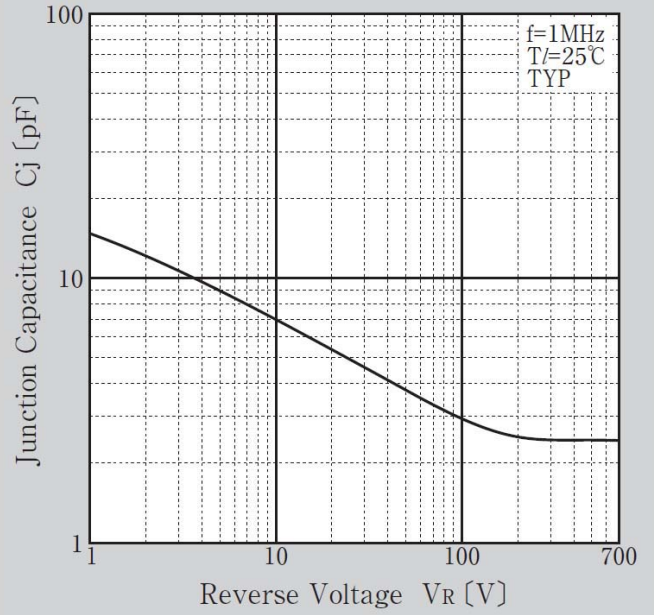
### Derating Curve



### Derating Curve

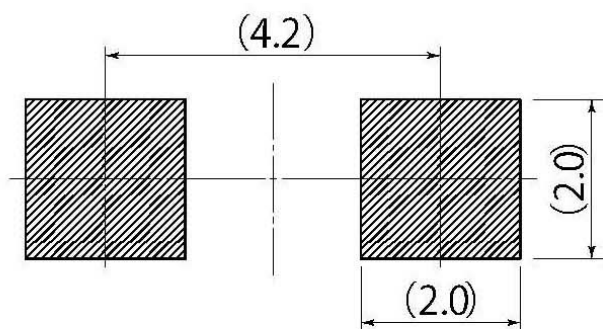
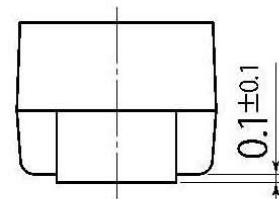
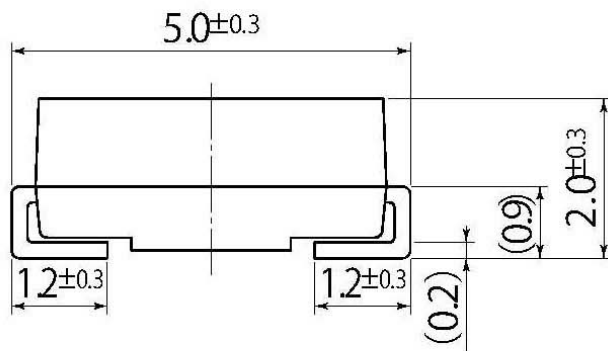
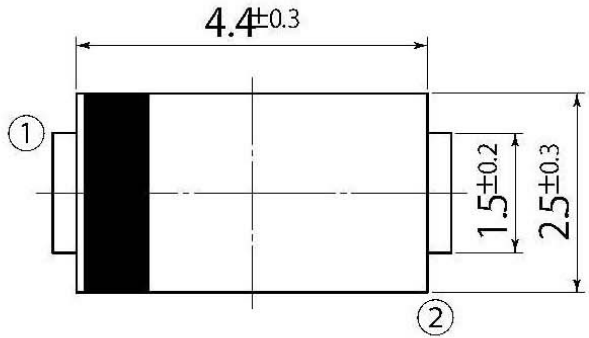


### Junction Capacitance



B3

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



Referential Soldering Pad

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