

D1FK70

Fast Recovery Diodes

700V, 0.8A

Feature

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

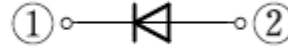
OUTLINE

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 _{stg}		-55 to 150	°C
Junction temperature	T _j		-55 to 150	°C
Repetitive peak reverse voltage	V _{RRM}		700	V
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On alumina substrate, Ta=32°C ※	0.8	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=33°C ※	0.6	A
Surge forward current	I _{FSM}	50Hz sine wave, Non-repetitive 1 cycle, Peak value, T _j =25°C	25	A

※ :See the original Specifications

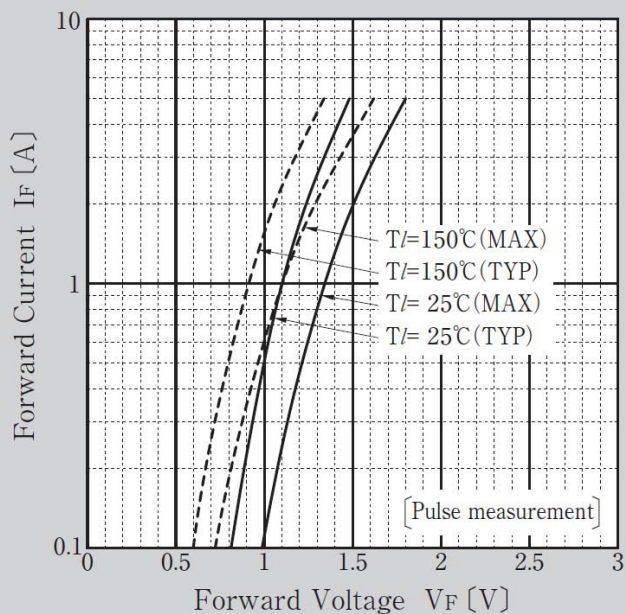
Electrical Characteristics (unless otherwise specified : Tl=25°C)

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	μA
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	$^{\circ}C/W$

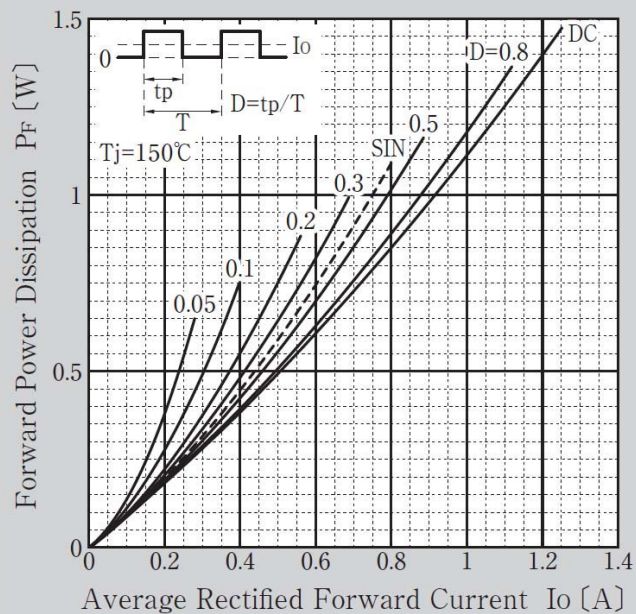
* :See the original Specifications

CHARACTERISTIC DIAGRAMS

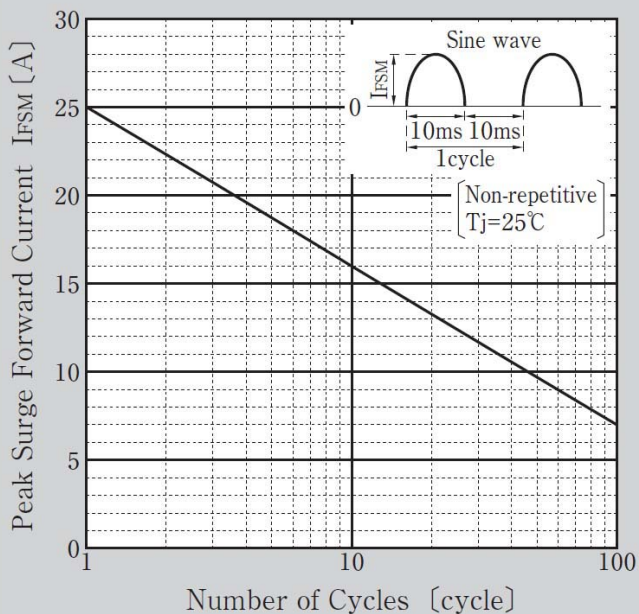
Forward Voltage



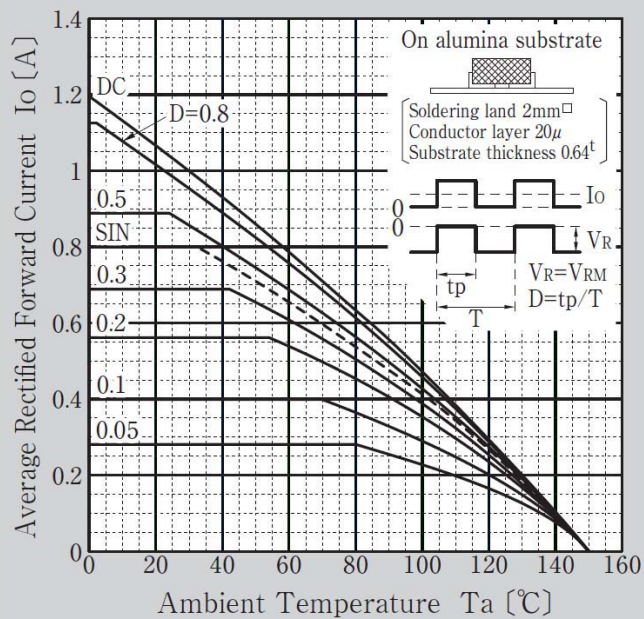
Forward Power Dissipation



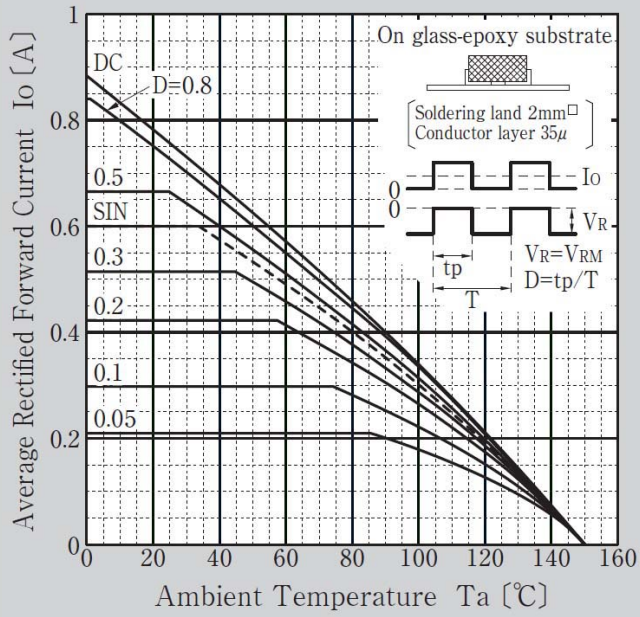
Peak Surge Forward Current Capability



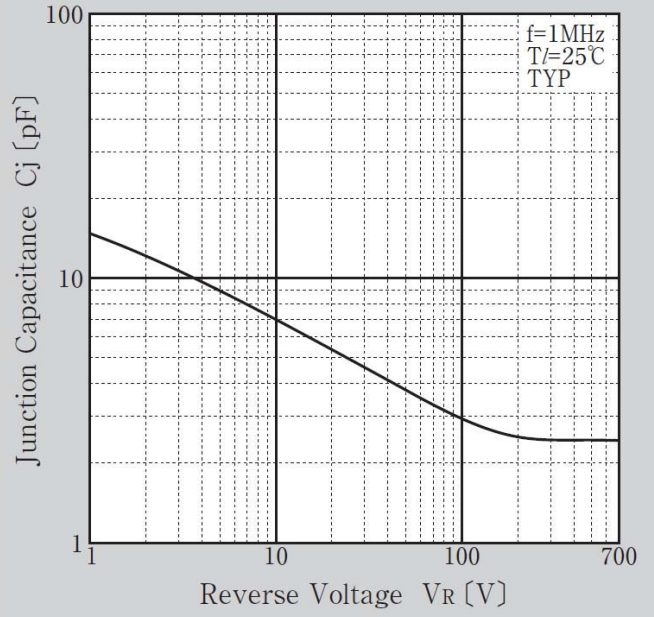
Derating Curve



Derating Curve

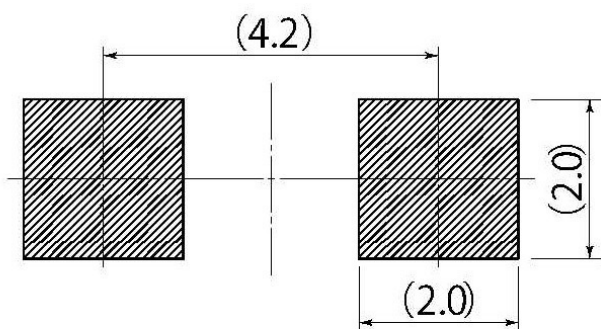
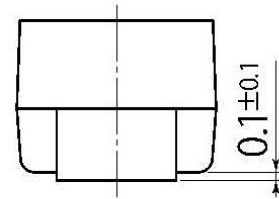
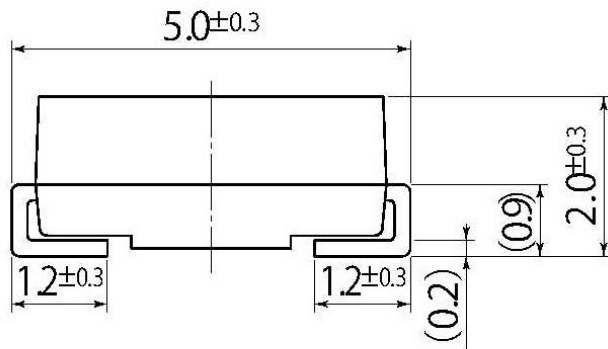
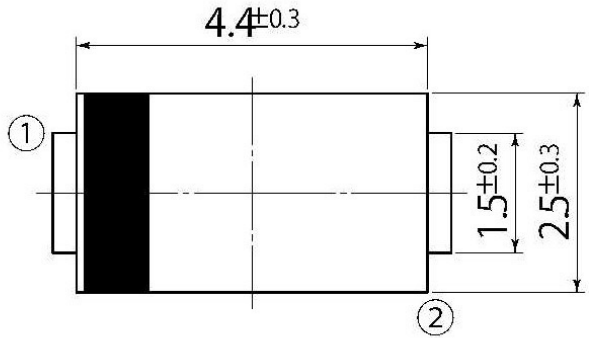


Junction Capacitance



B3

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



Referential Soldering Pad

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

Notes

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