

D1FL40U

Fast Recovery Diodes
400V, 1.5A

Feature

- Small SMD
- High Recovery Speed
- 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}		400	V
Non-repetitive peak reverse voltage	V _{RSM}	Pulse width 1ms	430	V
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, Tl=103°C	1.5	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On alumina substrate, Ta=25°C ※	1	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※	0.75	A
Surge forward current	I _{FSM}	50Hz sine wave, Non-repetitive 1 cycle, Peak value, Tj=25°C	30	A

※ : See the original Specifications

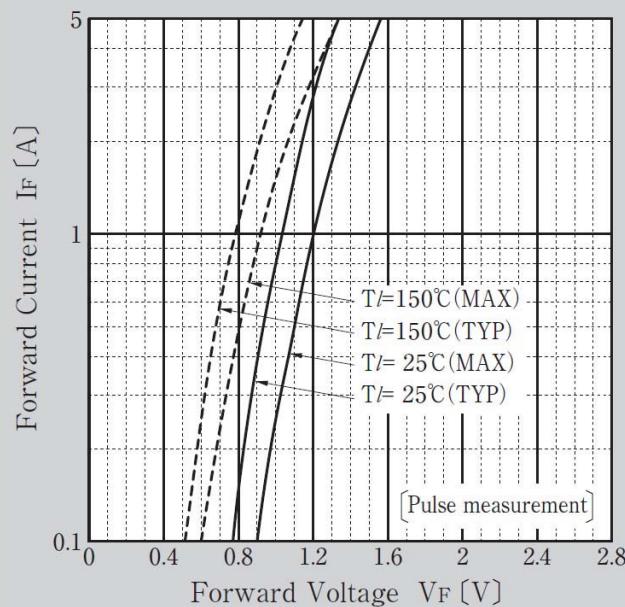
Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=1A, Pulse measurement			1.2	V
Reverse current	I_R	VR=400V, Pulse measurement			10	μA
Reverse recovery time	trr	IF=0.5A, IR=1.0A, 0.25IR			25	ns
Total capacitance	Ct	f=1MHz, VR=10V		11		pF
Thermal resistance	Rth(j-l)	Junction to lead			23	$^{\circ}C/W$
Thermal resistance	Rth(j-a)	Junction to ambient, On alumina substrate ※			108	$^{\circ}C/W$
Thermal resistance	Rth(j-a)	Junction to ambient, On glass-epoxy substrate ※			157	$^{\circ}C/W$

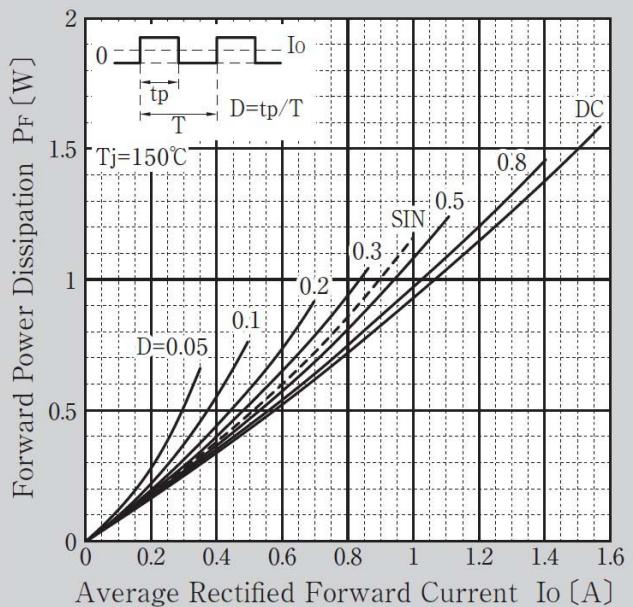
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

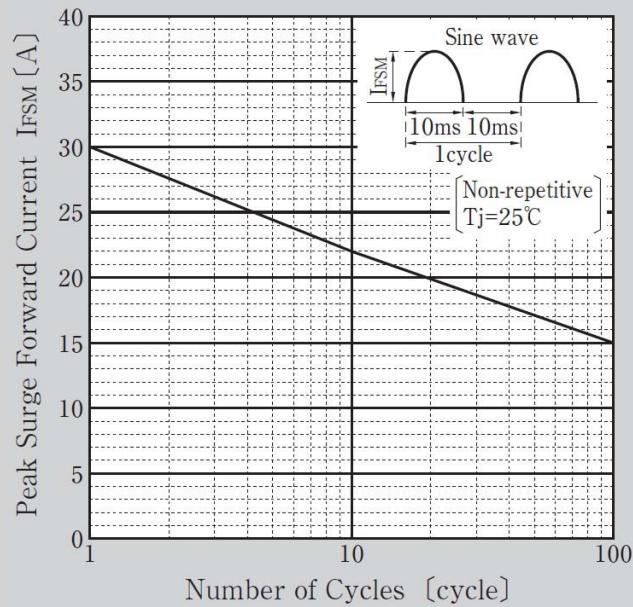
Forward Voltage



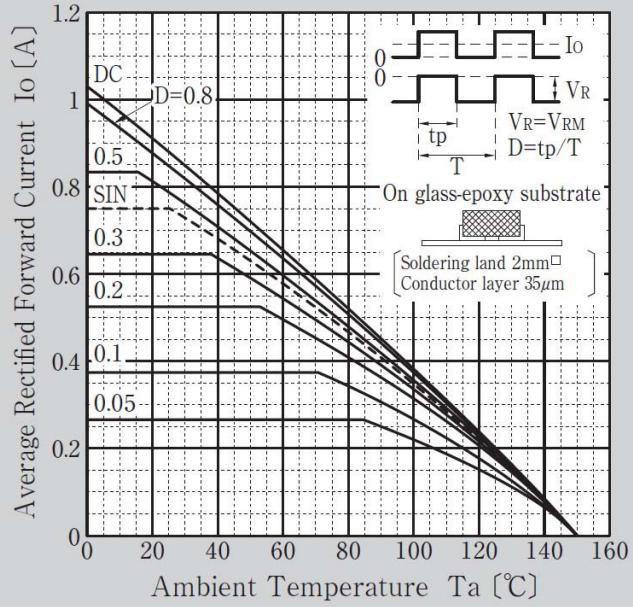
Forward Power Dissipation



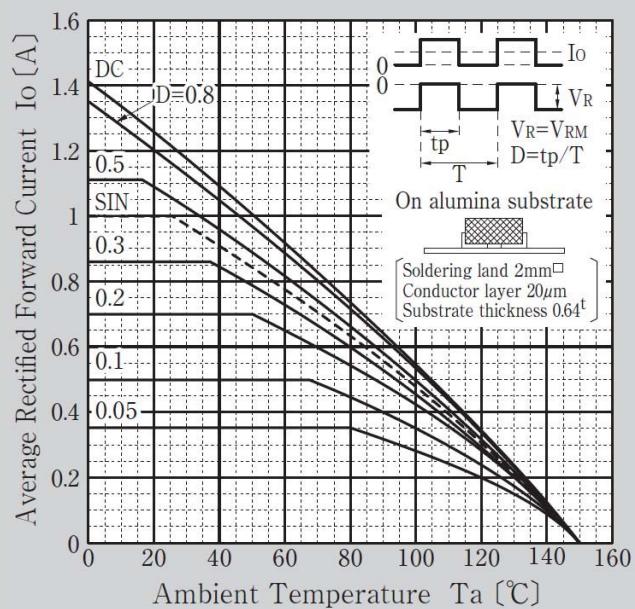
Peak Surge Forward Current Capability



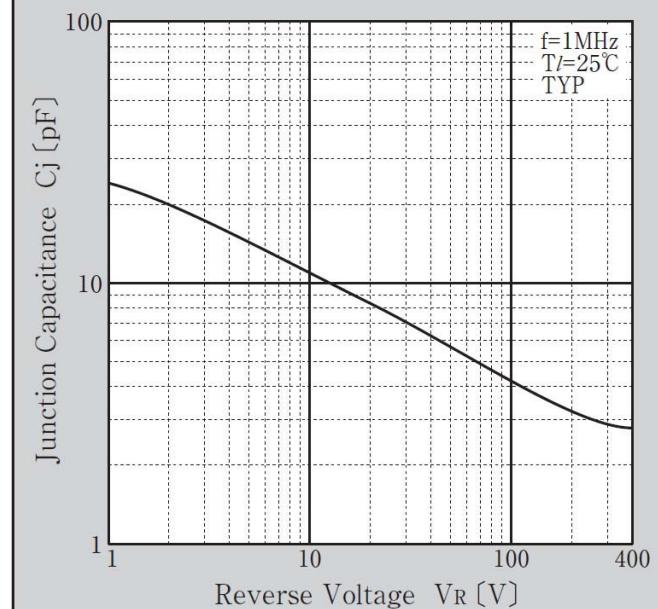
Derating Curve



Derating Curve



Junction Capacitance



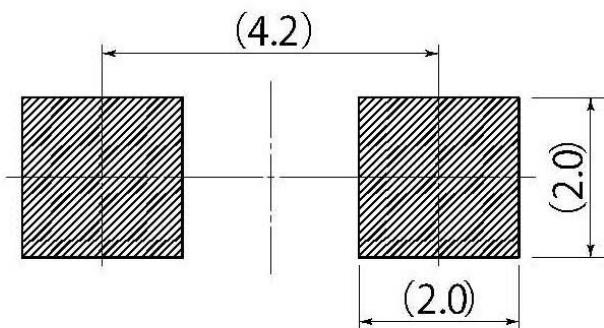
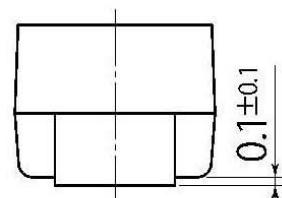
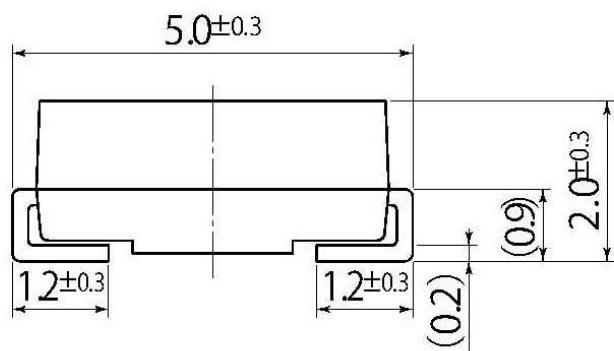
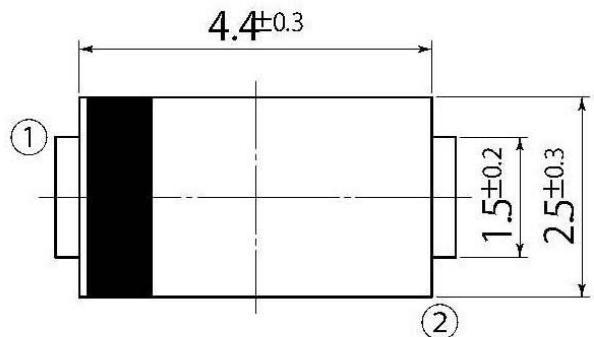
Outline Dimensions

unit:mm

scale: 10/1

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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【Specific applications】

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