

D2FL40U

Fast Recovery Diodes

400V, 2A

Feature

- Small SMD
- High Recovery Speed
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): 2F



Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperrature	Tstg		-55 to 150	°C
Junction temperature	Tj		-55 to 150	°C
Repetitive peak reverse voltage	V _{RRM}		400	V
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, Tl=100°C	2	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On alumina substrate, Ta=25°C	1.4	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C	1.14	A
Surge forward current	I _{FSM}	50Hz sine wave, Non-repetitive 1 cycle, Peak value, Tj=25°C	95	A

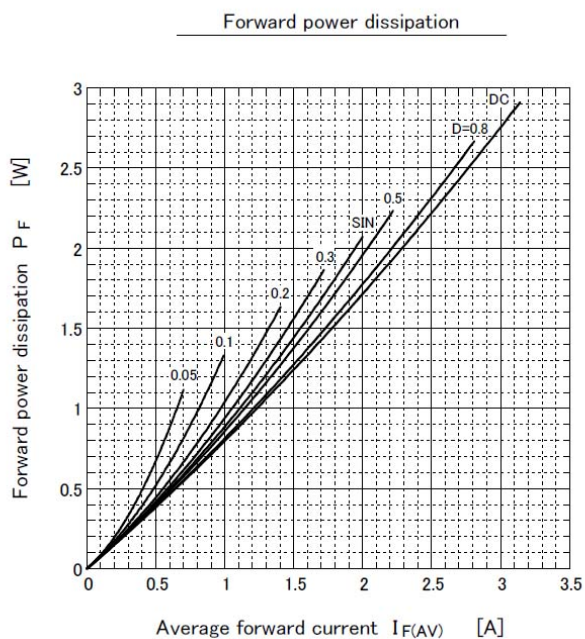
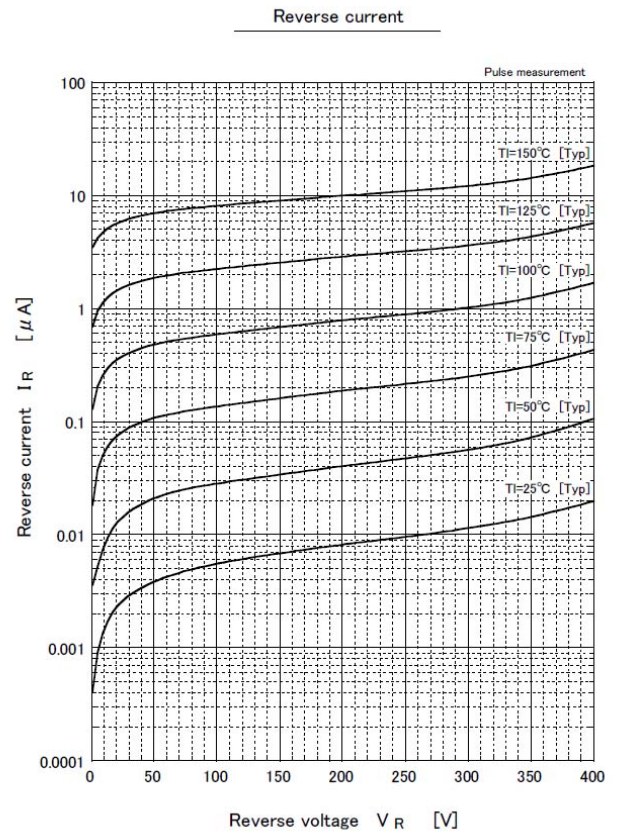
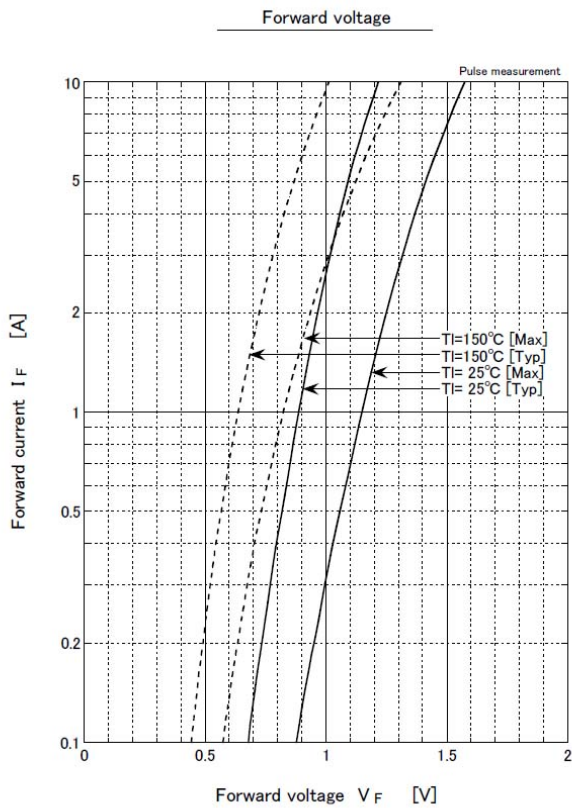
※ :See the original Specifications

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

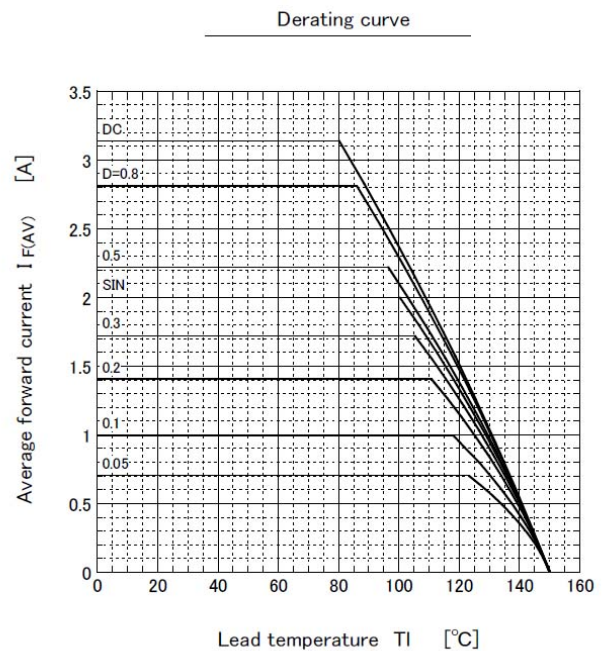
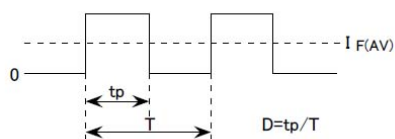
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=2A, Pulse measurement			1.25	V
Reverse current	I_R	VR=400V, Pulse measurement			10	μA
Reverse recovery time	trr	IF=0.5A, IR=1.0A, 0.25IR			35	ns
Total capacitance	Ct	f=1MHz, VR=10V		34		pF
Thermal resistance	Rth(j-l)	Junction to lead			24	°C/W
Thermal resistance	Rth(j-a)	Junction to ambient, On alumina substrate ※			90	°C/W
Thermal resistance	Rth(j-a)	Junction to ambient, On glass-epoxy substrate ※			120	°C/W

※ :See the original Specifications

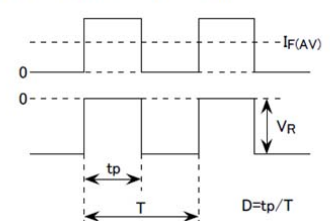
CHARACTERISTIC DIAGRAMS



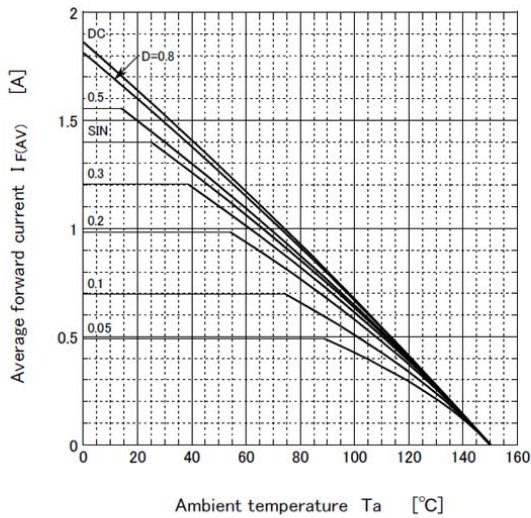
● $T_J = 150^\circ\text{C}$



● $V_R = 400\text{V}$
 R-load
 Free in air



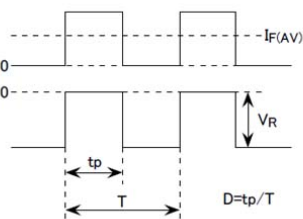
Derating curve



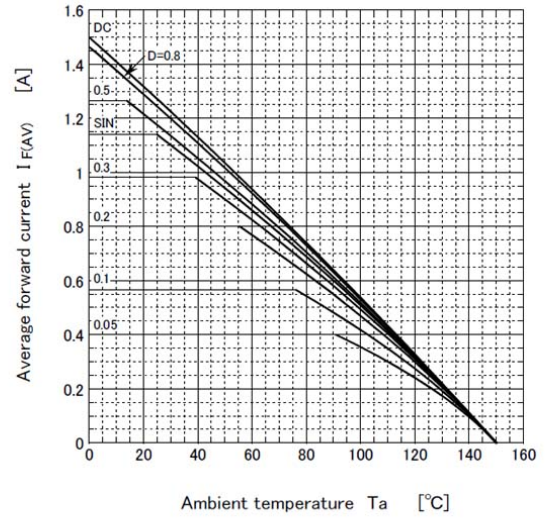
● $V_R = 400V$
R-load
Free in air

● Substrate detail

Type	Alumina
Size	1 inch ²
Thickness	0.64mm
Conductor thickness	20 μm
Pattern area	38.52mm ²



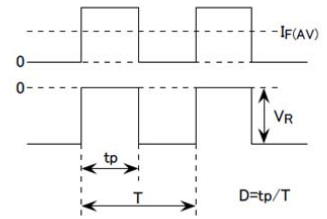
Derating curve



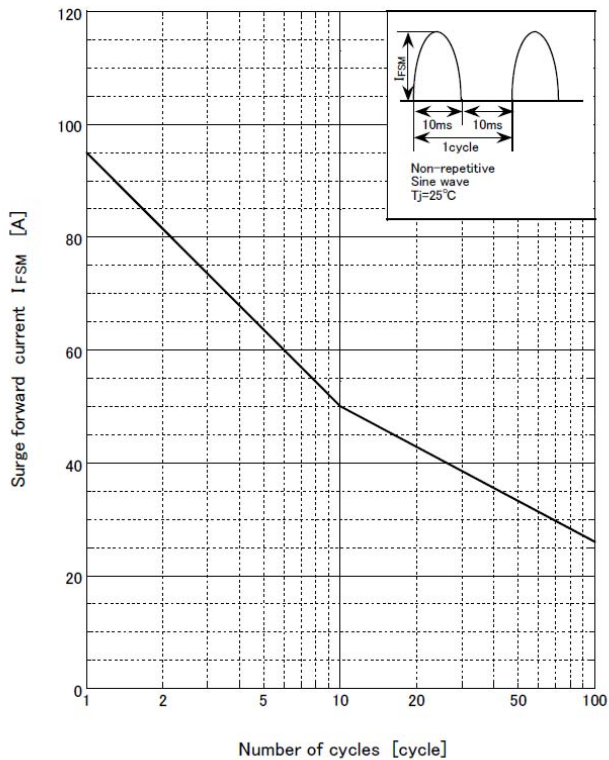
● $V_R = 400V$
R-load
Free in air

● Substrate detail

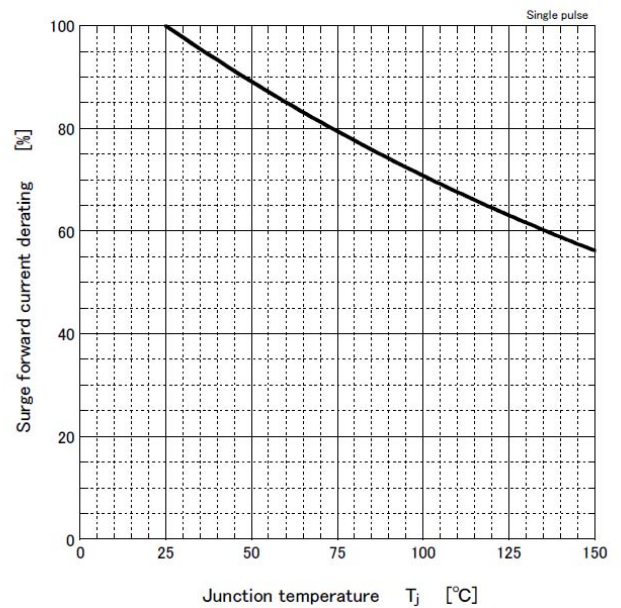
Type	Glass/epoxy
Size	1 inch ²
Thickness	1mm
Conductor thickness	35 μm
Pattern area	38.52mm ²

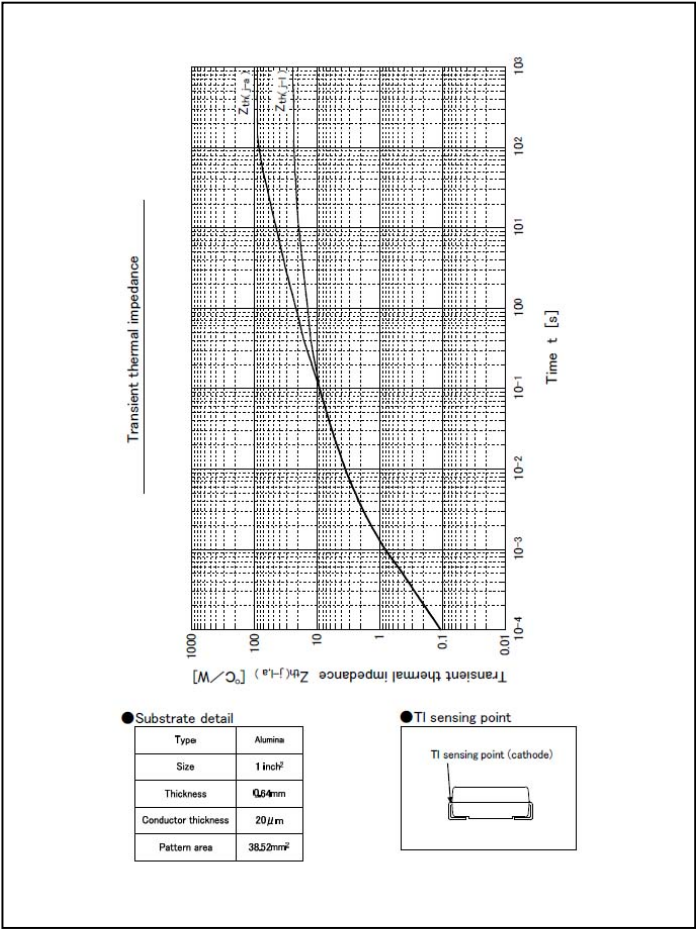
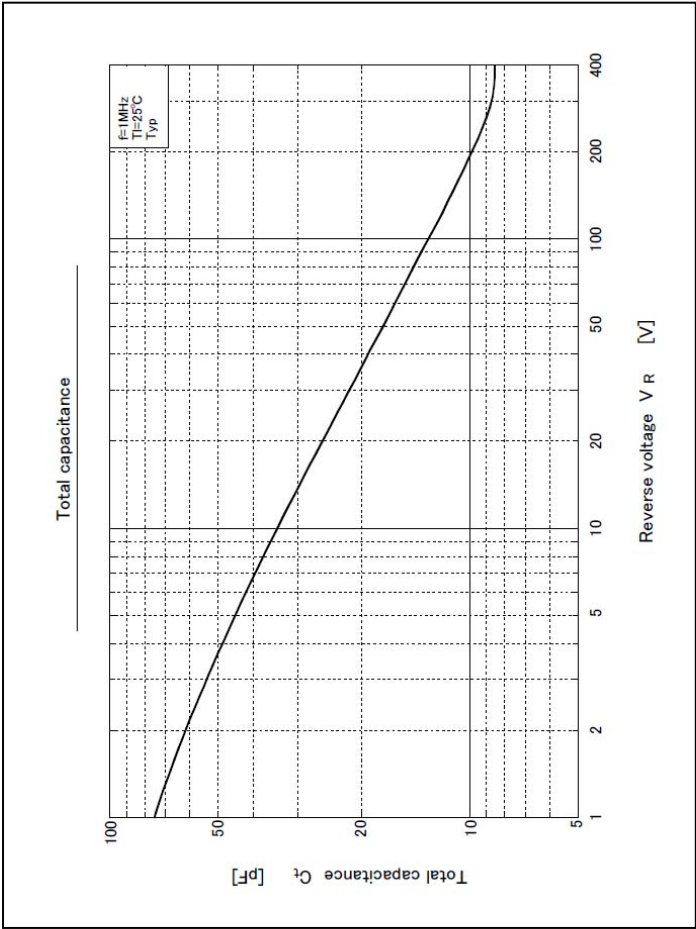
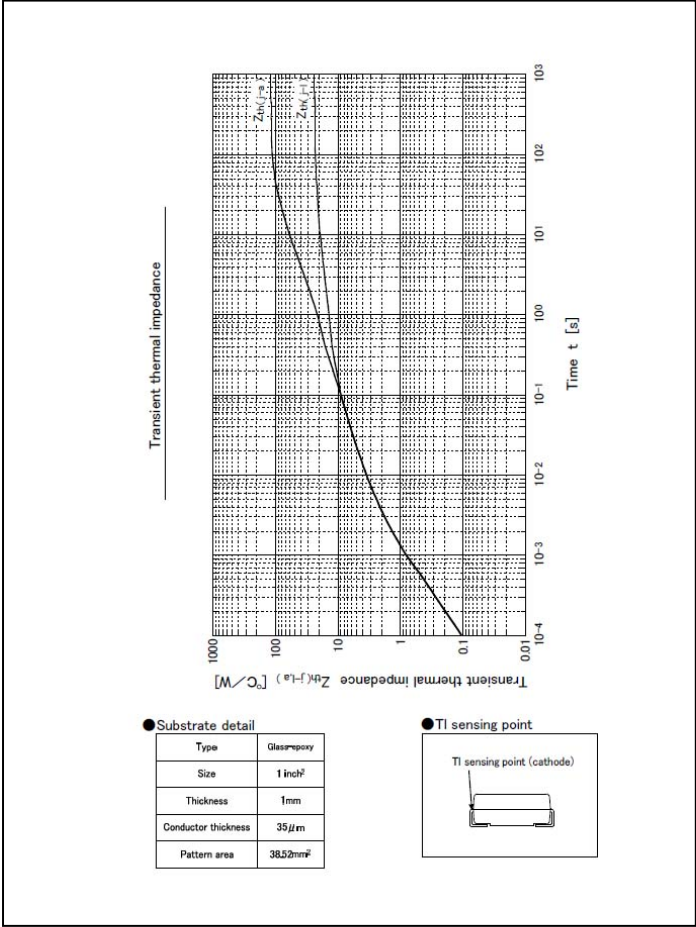


Surge forward current capability



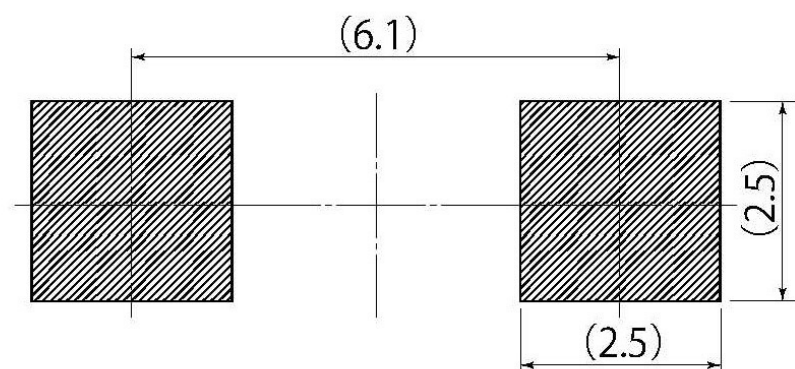
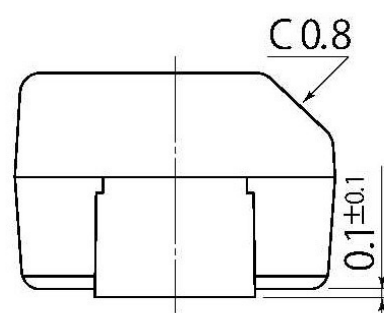
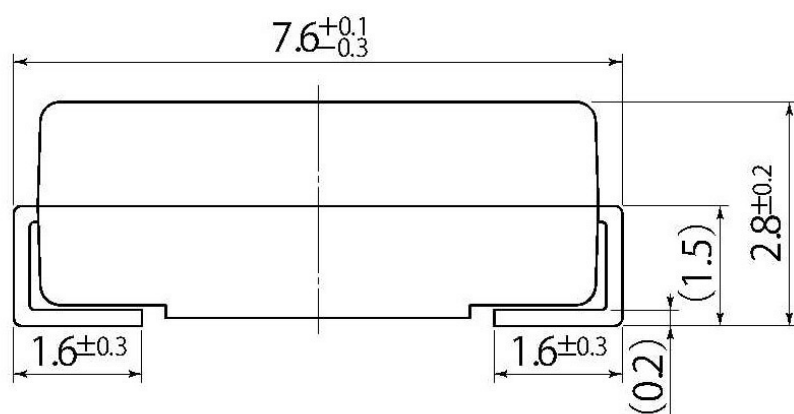
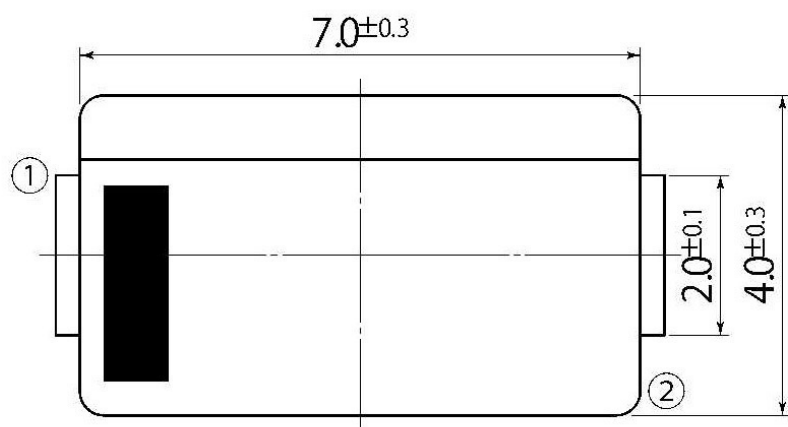
Surge forward current derating vs Junction temperature





B9

JEDEC Code	—
JEITA Code	—
House Name	2F



Referential Soldering Pad

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

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