

D2FS4
Schottky Barrier Diodes
40V, 1.6A

Feature

- Small SMD
- High Recovery Speed
- Low V_F
- Available for automotive use
- 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 temperature	Tstg		-55 to 150	°C
Junction temperature	Tj		-55 to 150	°C
Repetitive peak reverse voltage	V_{RRM}		40	V
Repetitive peak surge reverse voltage	V_{RRSM}	Pulse width 0.5ms, duty=1/40	45	V
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, On alumina substrate, Ta=34°C ※	1.6	A
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※	1.3	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive, 1cycle, Peak value, Tj=125°C	60	A
Repetitive peak surge reverse power	P_{RRSM}	Pulse width 10μs, Tj=25°C	330	W

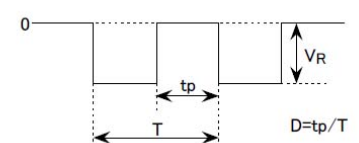
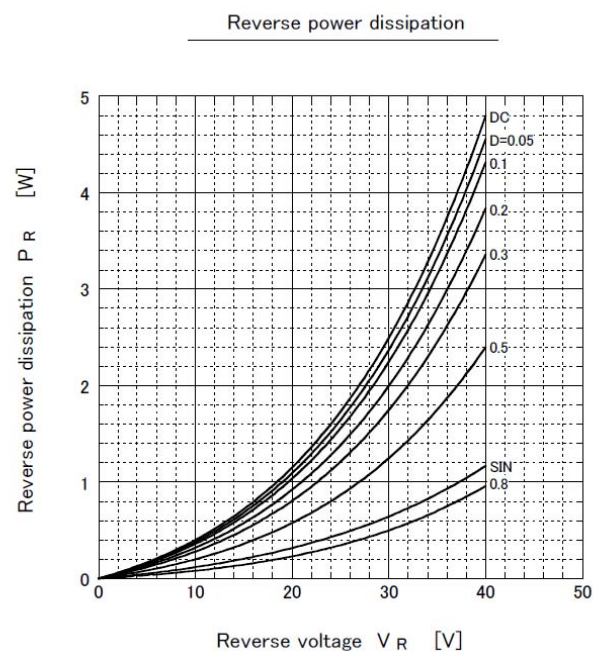
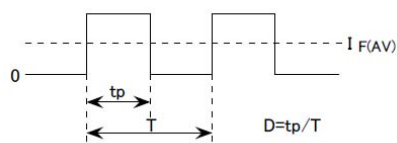
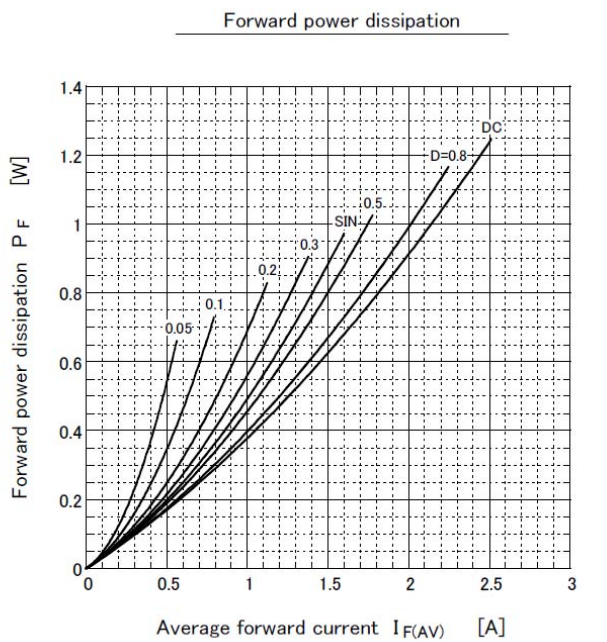
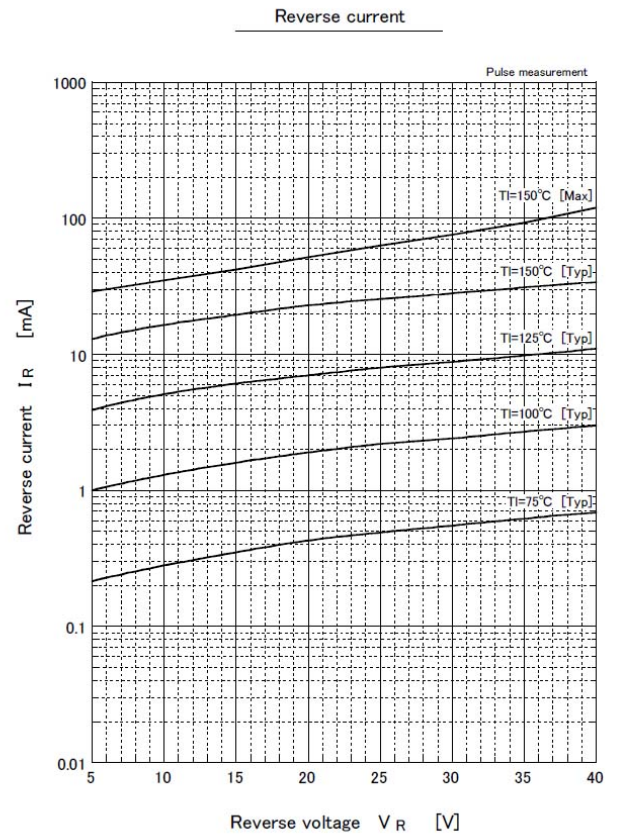
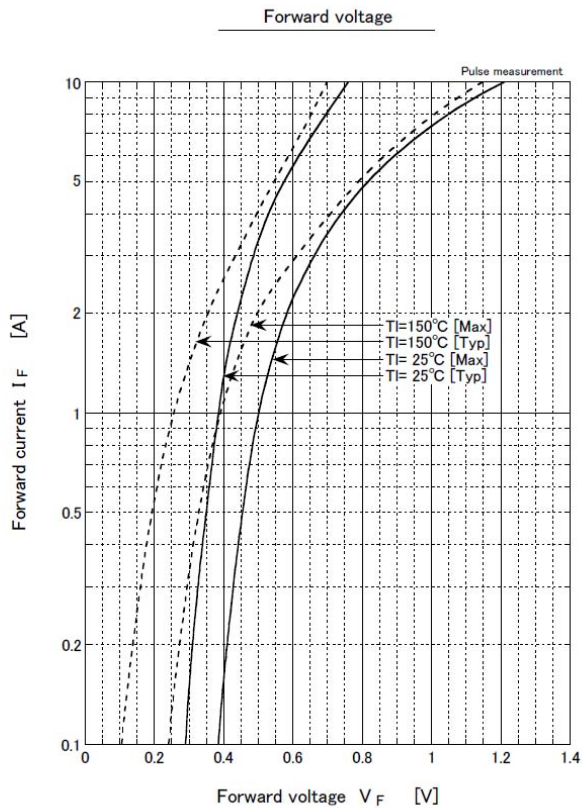
※ : See the original Specifications

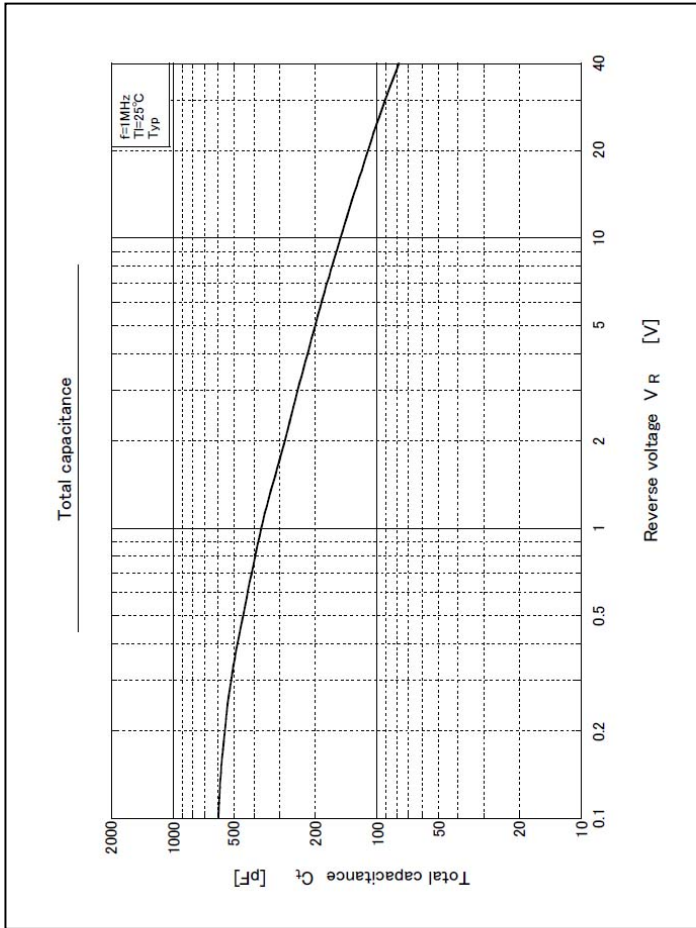
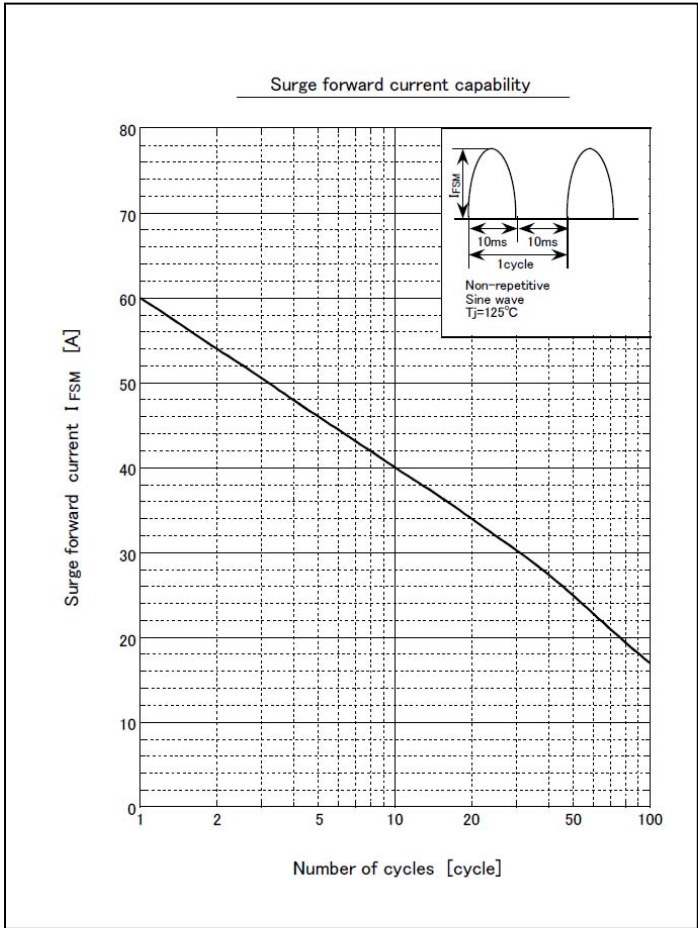
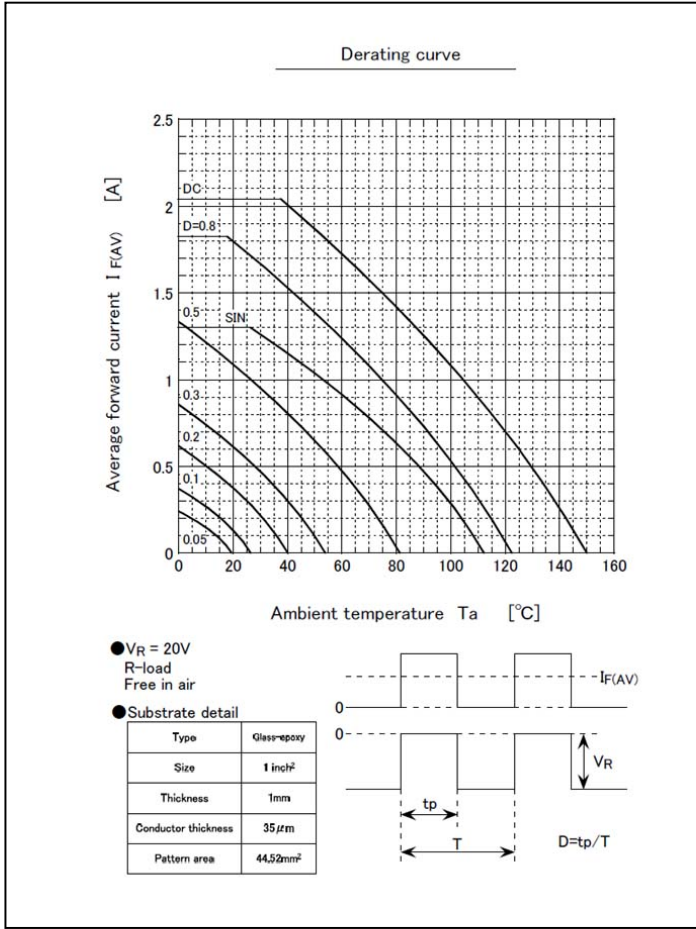
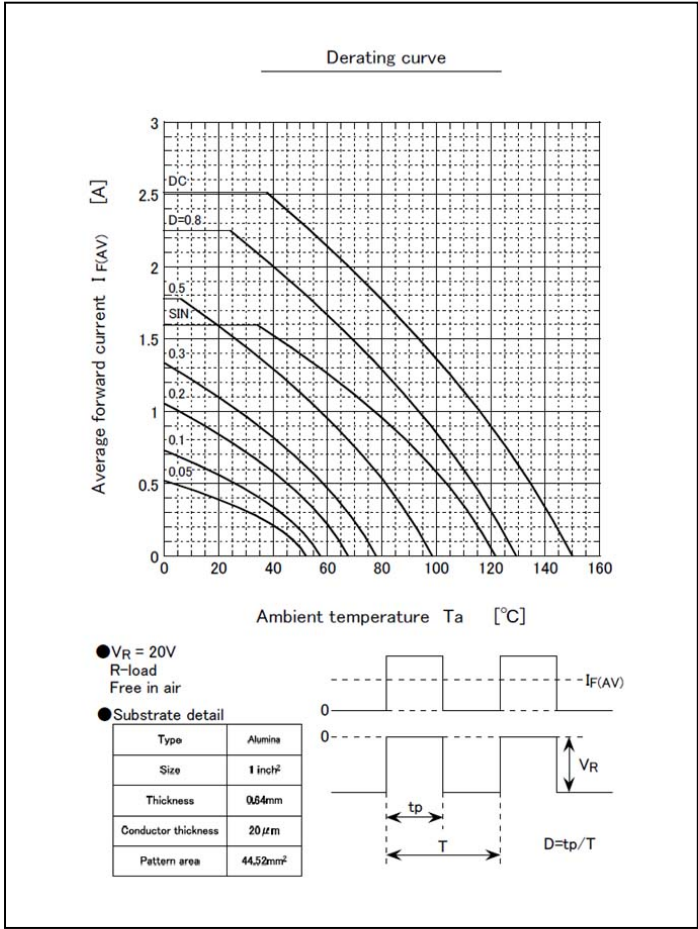
Electrical Characteristics (unless otherwise specified : Tl=25°C)

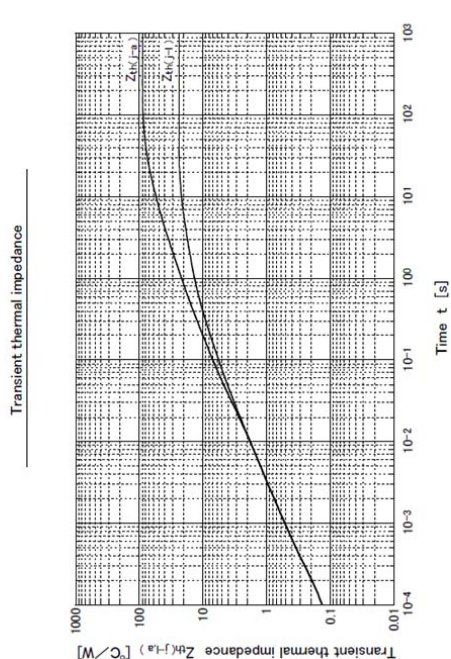
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=1.6A, Pulse measurement			0.55	V
Reverse current	I_R	VR=40V, Pulse measurement			2.5	mA
Total capacitance	Ct	f=1MHz, VR=10V		150		pF
Thermal resistance	Rth(j-l)	Junction to lead			24	°C/W
Thermal resistance	Rth(j-a)	Junction 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



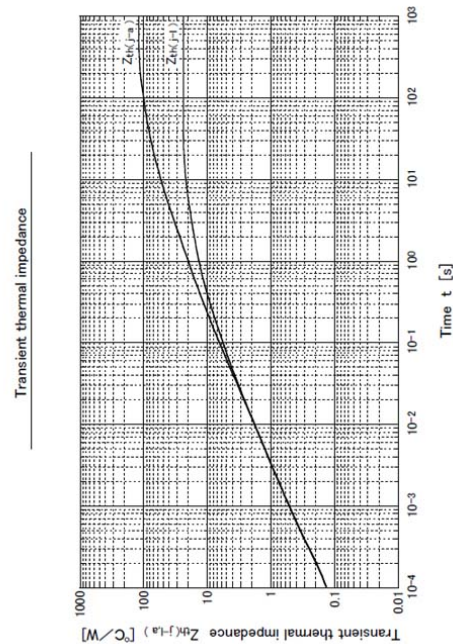
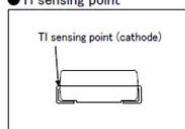




● Substrate detail

Type	Alumina
Size	1 inch ²
Thickness	0.64mm
Conductor thickness	20μm
Pattern area	44.52mm ²

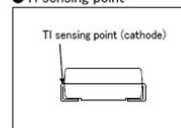
● TI sensing point



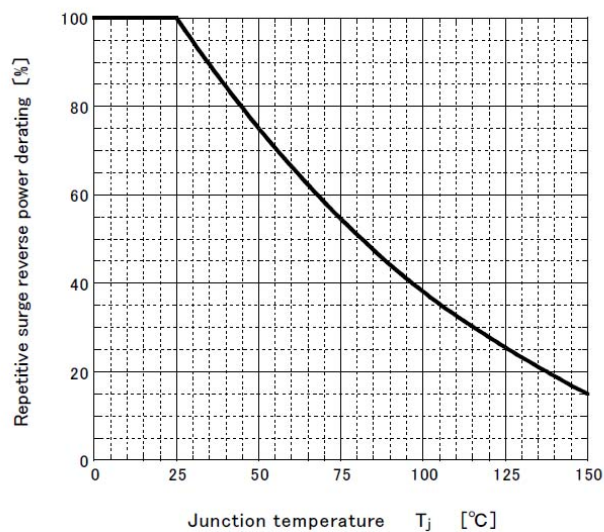
● Substrate detail

Type	Glass-epoxy
Size	1 inch ²
Thickness	1mm
Conductor thickness	35μm
Pattern area	44.52mm ²

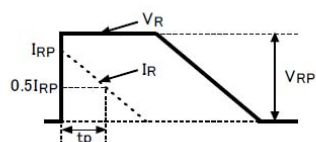
● TI sensing point



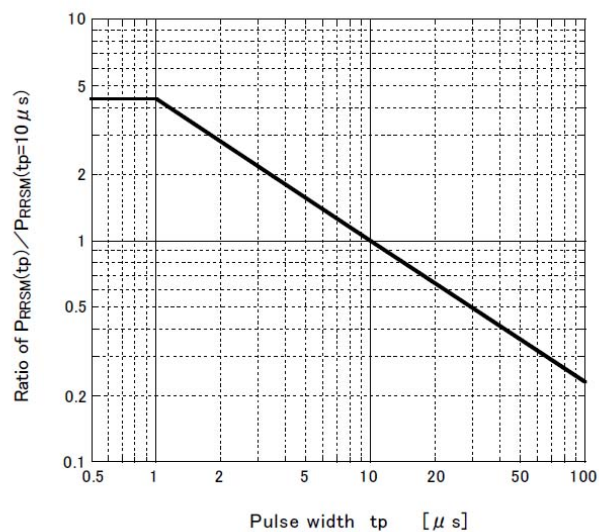
Repetitive surge reverse power derating
vs Junction temperature



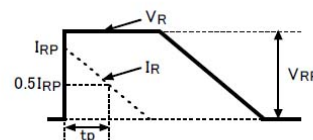
● $P_{RRSM} = I_{RP} \times V_{RP}$



Repetitive surge reverse power capability

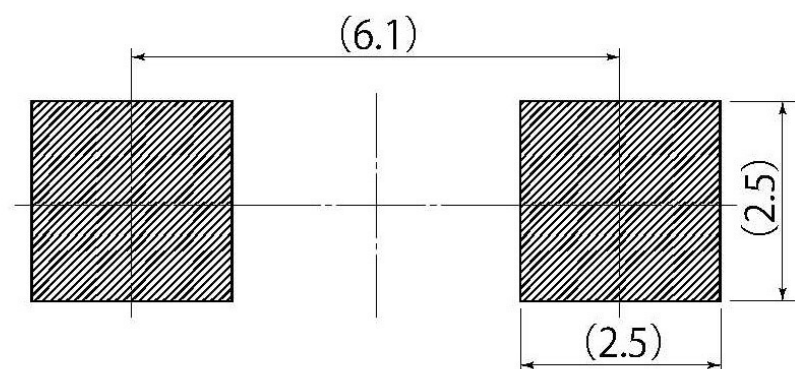
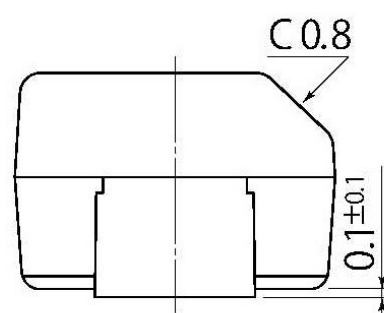
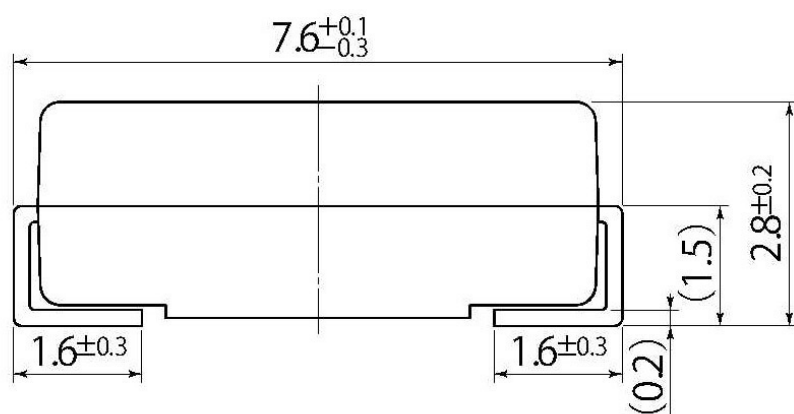
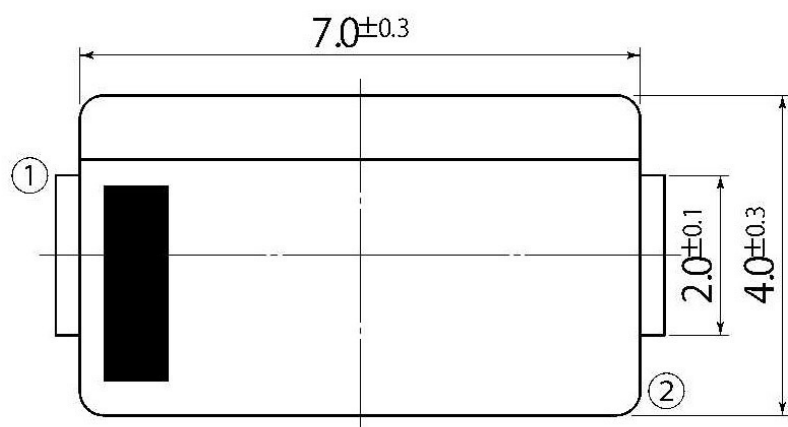


● $P_{RRSM} = I_{RP} \times V_{RP}$



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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