ShinDengen

D3FJ10

Schottky Barrier Diodes
100V, 3A

Feature

- Small SMD
- High Recovery Speed
- 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 temperrature	Tstg		-55 to 150	°C
Junction temperature	Tj		-55 to 150	°C
Repetitive peak reverse voltage	V_{RRM}		100	V
Average forward current	I_F(AV)	50Hz sine wave, Resistance load, Tl=92°C	3	A
Average forward current	I_F(AV)	50Hz sine wave, Resistance load, On alumina substrate, Ta=28°C ※	2	A
Average forward current	I_F(AV)	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=30°C ※	1.4	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive, 1cycle, Peak value, Tj=25°C	100	A

※ :See the original Specifications

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

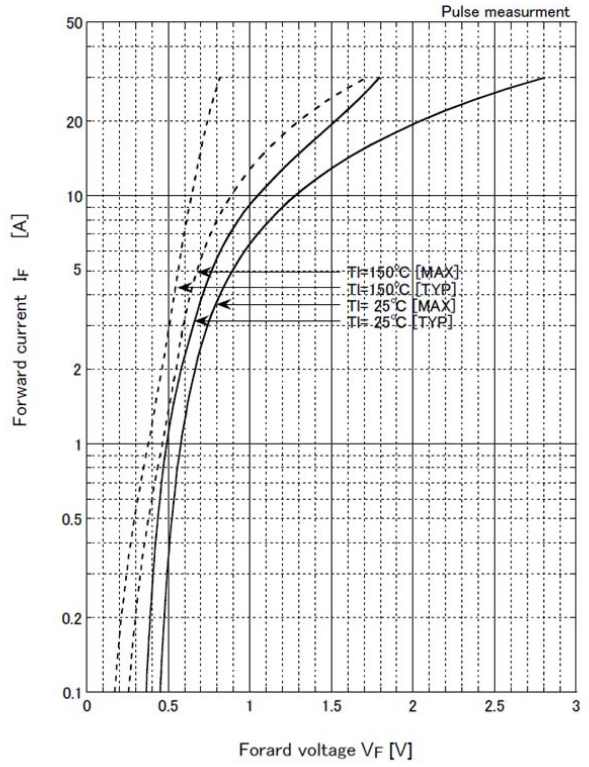
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=3A, Pulse measurement			0.74	V
Reverse current	I_R	VR=100V, Pulse measurement			0.4	mA
Total capacitance	Ct	f=1MHz, VR=10V		143		pF
Thermal resistance	Rth(j-l)	Junction to lead			23	°C/W
Thermal resistance	Rth(j-a)	Junction to ambient, On alumina substrate ※			80	°C/W
Thermal resistance	Rth(j-a)	Junction to ambient, On glass-epoxy substrate ※			115	°C/W

※ ：See the original Specifications

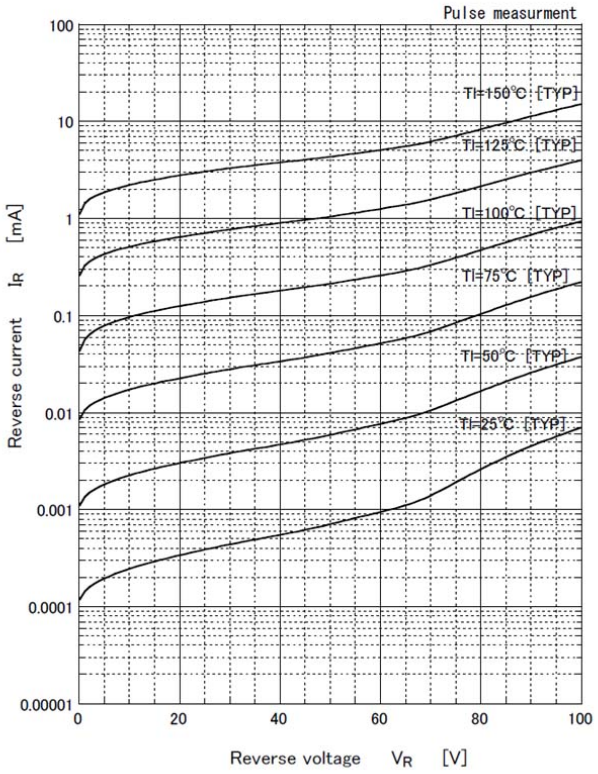
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CHARACTERISTIC DIAGRAMS

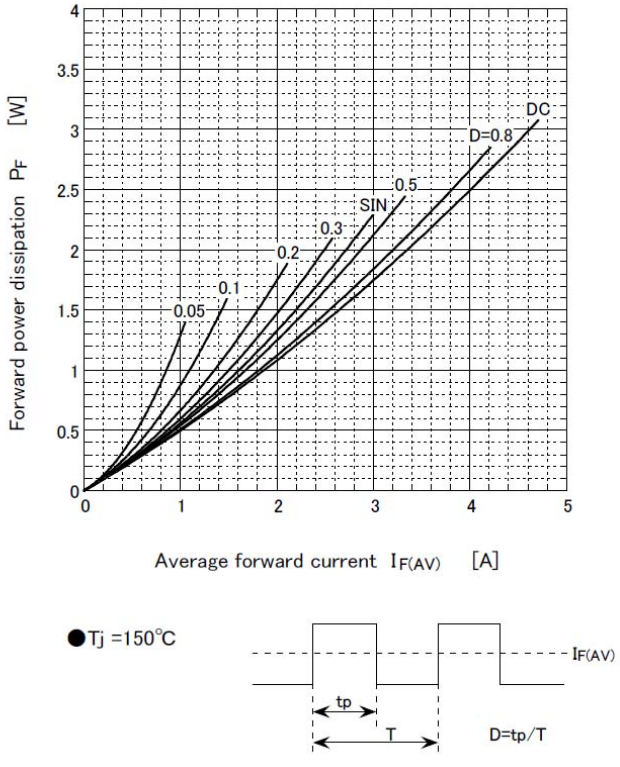
Forward voltage



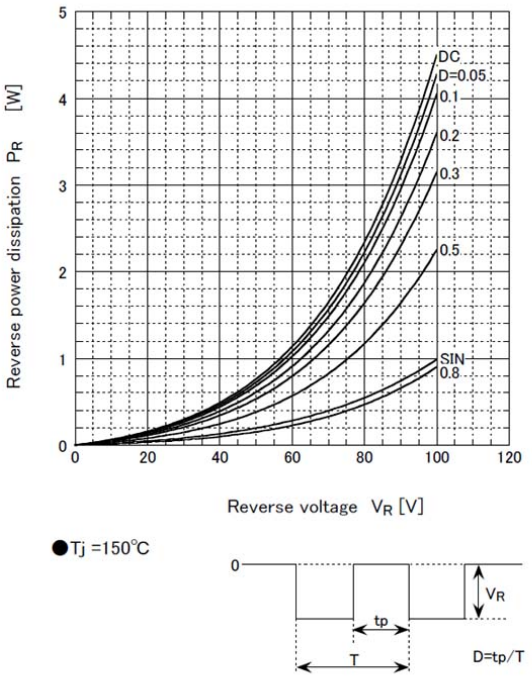
Reverse current



Forward power dissipation

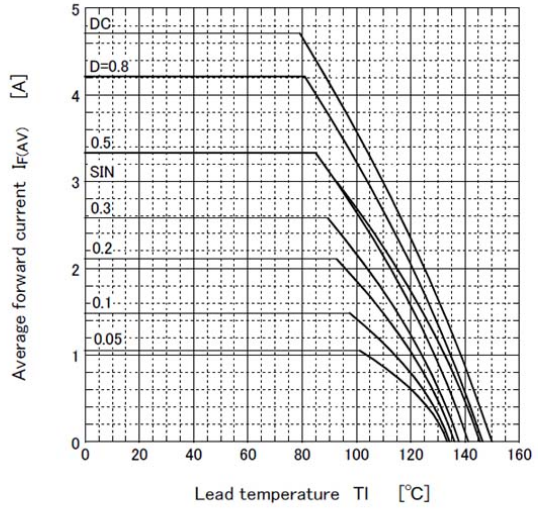


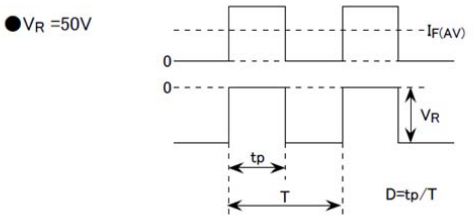
Reverse power dissipation



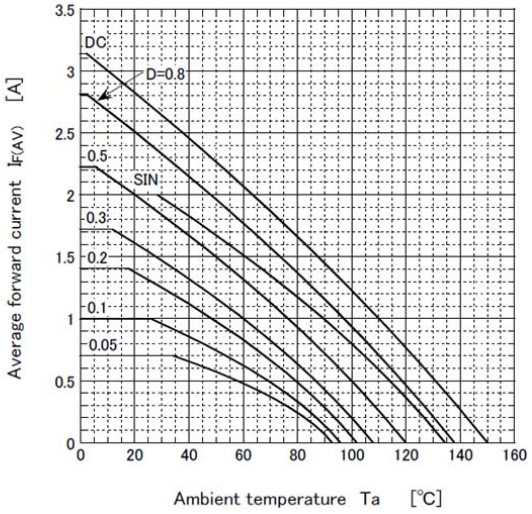
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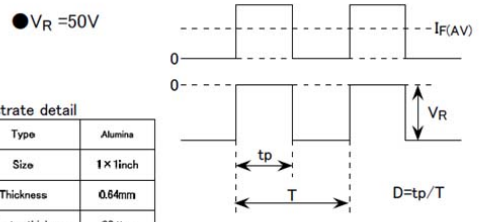
Derating curve





Derating curve

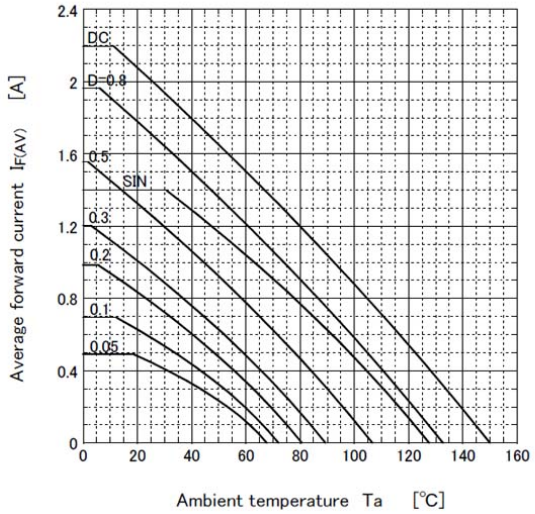


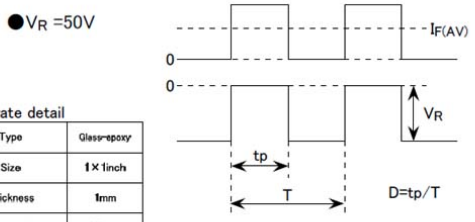


●Substrate detail

Type	Alumina
Size	1×1inch
Thickness	0.64mm
Conductor thickness	20μm
Pattern area	44.5mm²

Derating curve

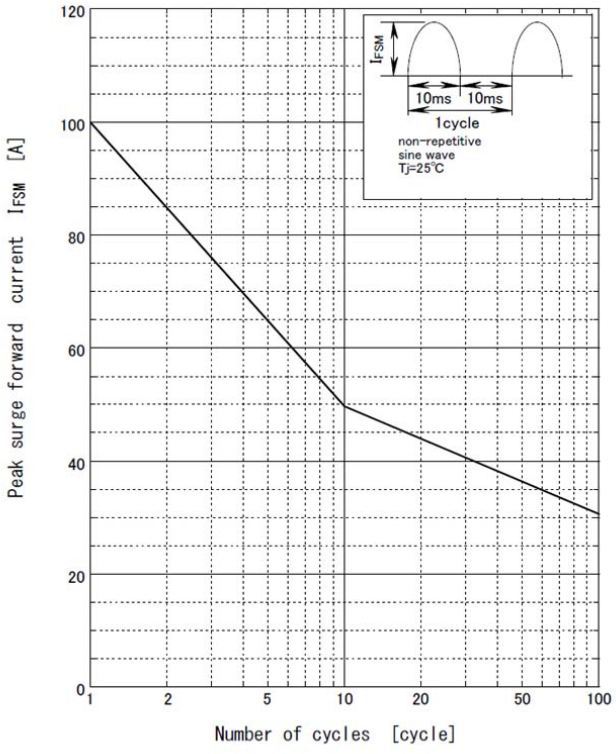




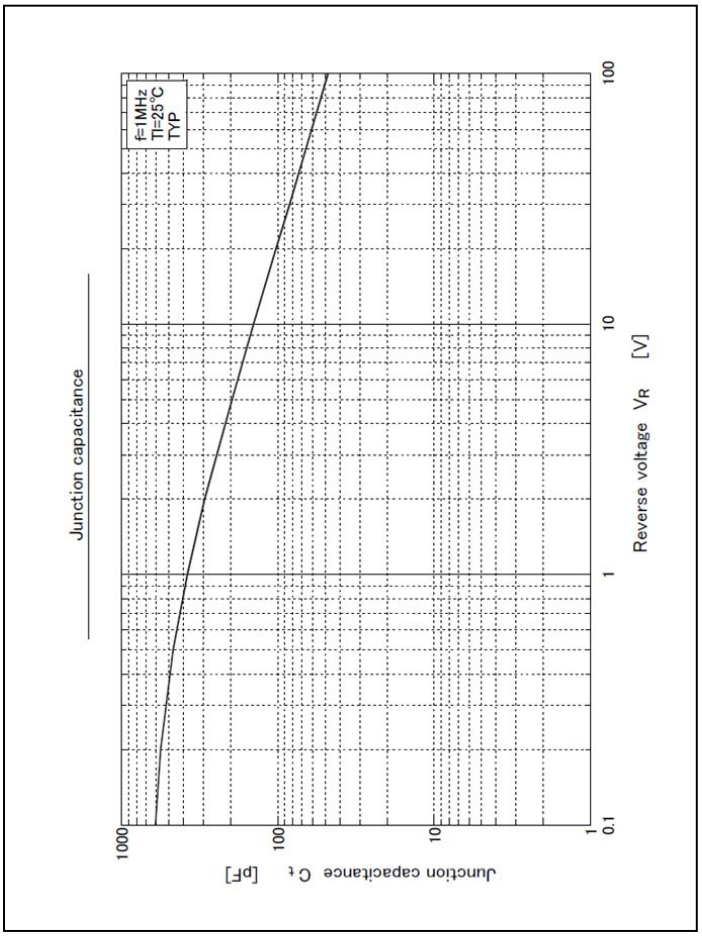
●Substrate detail

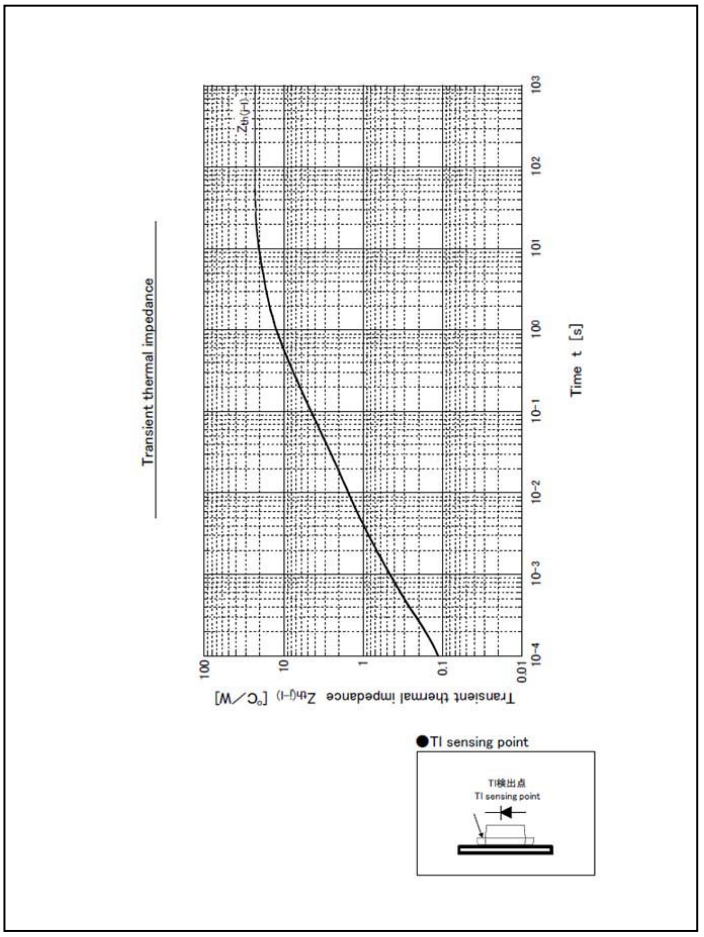
Type	Glass-epoxy
Size	1×1inch
Thickness	1mm
Conductor thickness	35μm
Pattern area	44.5mm²

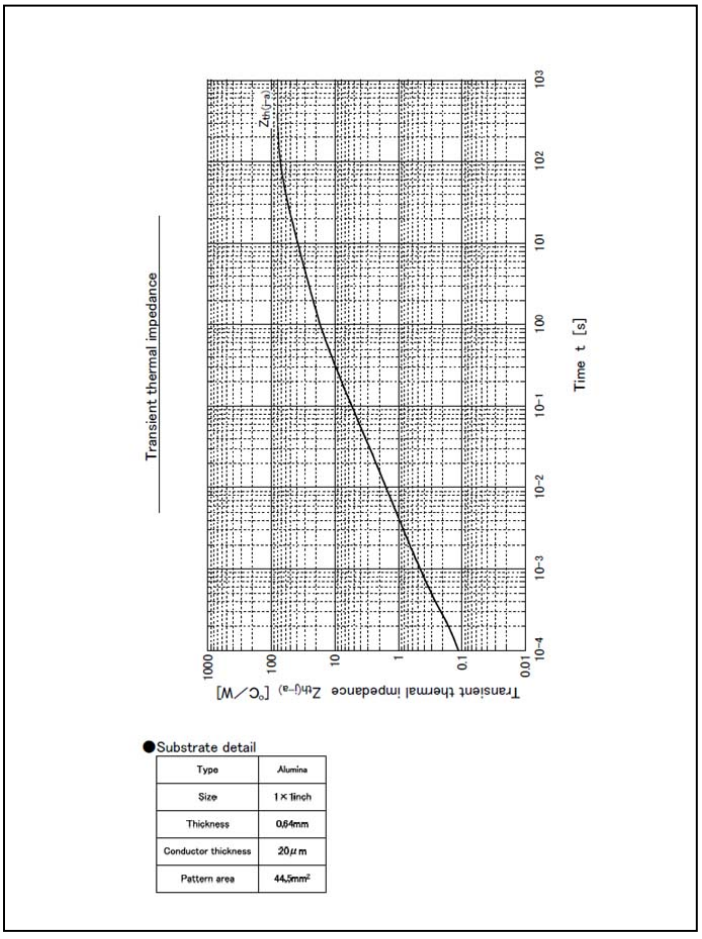
Peak surge forward capability



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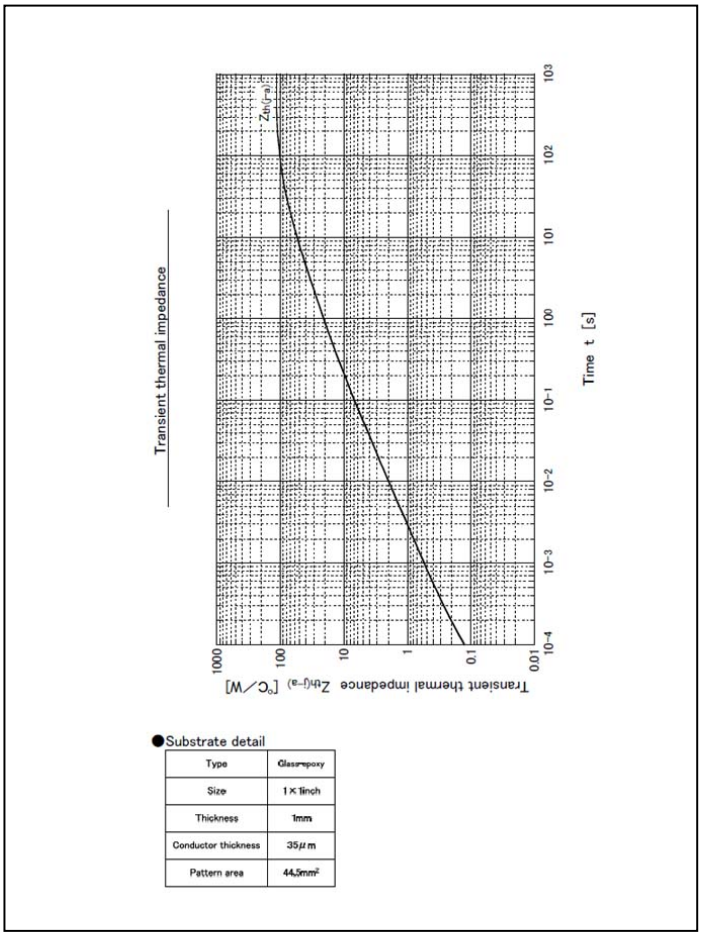






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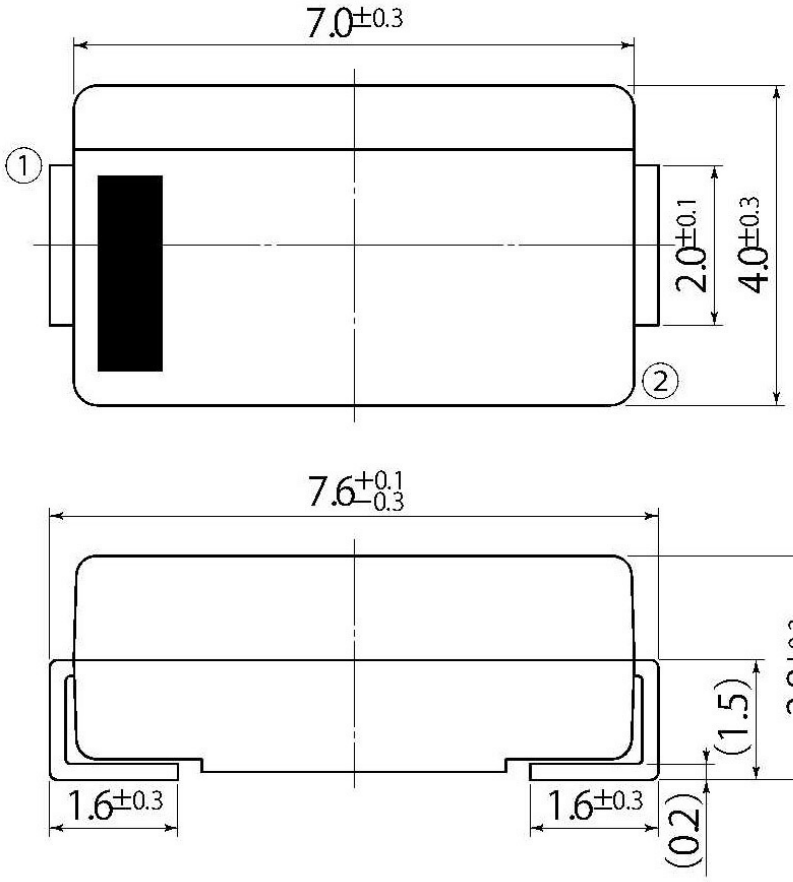
Outline Dimensions

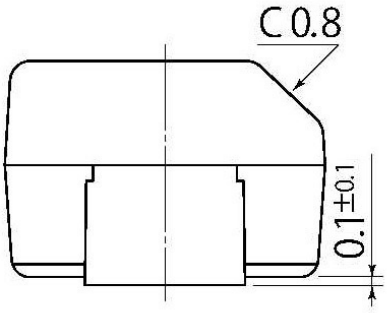
unit:mm

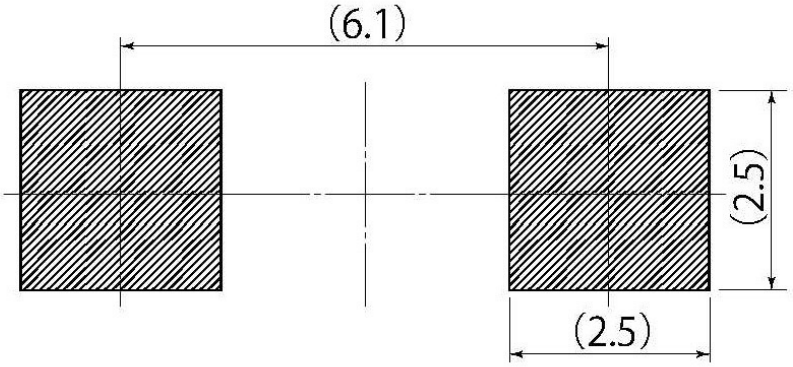
scale: 10/1

B9

JEDEC Code	–
JEITA Code	–
House Name	2F







Referential Soldering Pad

・Optimize soldering pad to the board design and soldering condi tion.

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Notes

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