ShinDengen

S2NBC100-7062

Bridge Diodes
1000V, 2A

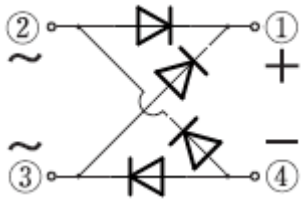
Feature

- Small SMD (There is also DIP)
- High Voltage
- High I_{FSM}
- Pin-distance 3.4mm for isolation
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): 1NA

Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperrature	Tstg		-55 to 150	℃
Junction temperature	Tj		-55 to 150	℃
Repetitive peak reverse voltage	V_{RRM}		1000	V
Average forward current	I_F(AV)	50Hz sine wave, Resistance load, On glass-epoxy substrate Tl=93℃ ※	2	A
Average forward current	I_F(AV)	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25℃ ※	1	A
Average forward current	I_F(AV)	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25℃ ※	0.87	A
Surge forward current	I_{FSM}	60Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25℃	65	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25℃	60	A
Surge forward current	I_{FSM1}	tp=1ms, sine wave, Non-repetitive, peak value, per diode, Tj=25℃	141	A

※ :See the original Specifications

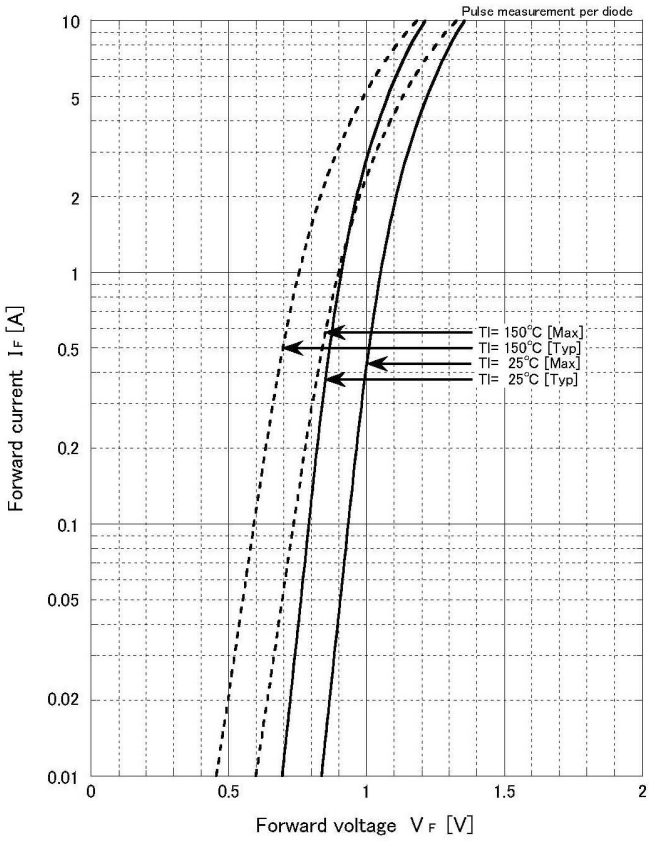
Electrical Characteristics (unless otherwise specified : Tl=25℃)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=1A, Pulse measurement, per diode			1.05	V
Reverse current	I_R	VR=1000V, Pulse measurement, per diode			10	μA
Total capacitance	Ct	f=1MHz, VR=10V		12.3		pF
Thermal resistance	Rth(j-l)	Junction to lead, On glass-epoxy substrate ※			15	℃/W
Thermal resistance	Rth(j-a)	Junction to ambient, On glass-epoxy substrate ※			68	℃/W
Thermal resistance	Rth(j-a)	Junction to ambient, On glass-epoxy substrate ※			84	℃/W

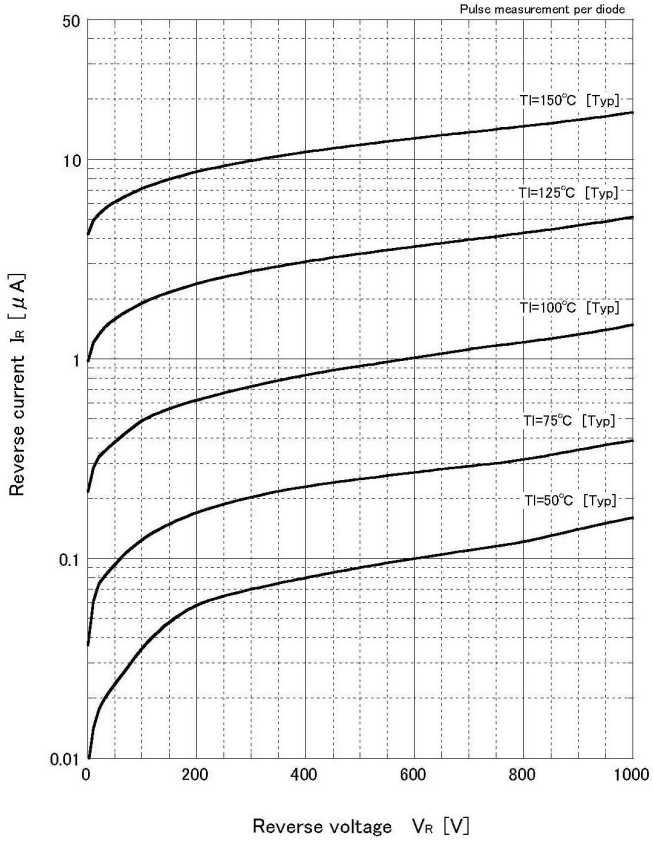
※ ：See the original Specifications

CHARACTERISTIC DIAGRAMS

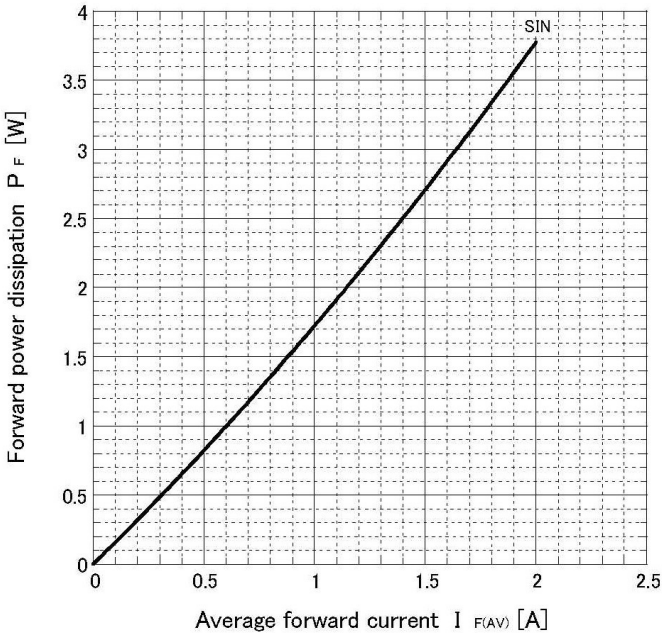
Forward voltage



Reverse current

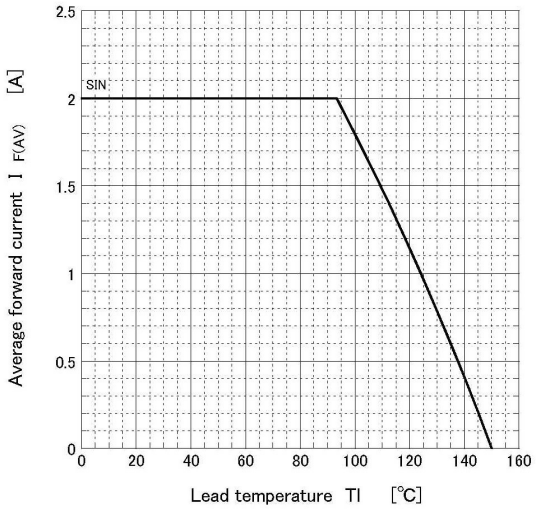


Forward power dissipation



●Tj =150℃

Derating curve

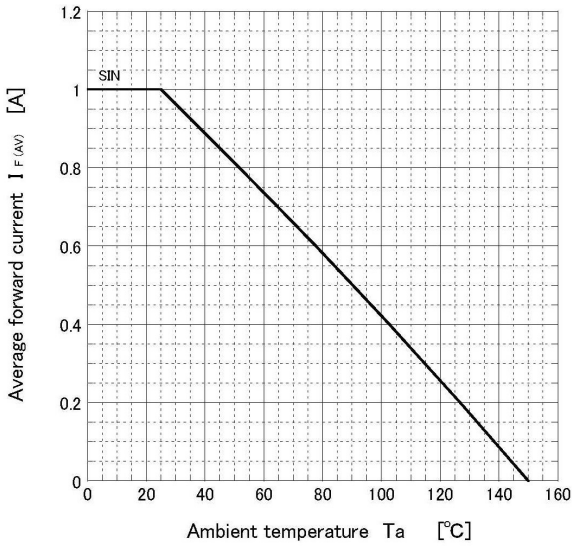


●VR = 1000V
R-load
Free in air

●Substrate detail

Type	Glass-epoxy
Size	50mm ×50mm
Thickness	1mm
Conductor thickness	35μm
Pattern area	174mm²

Derating curve

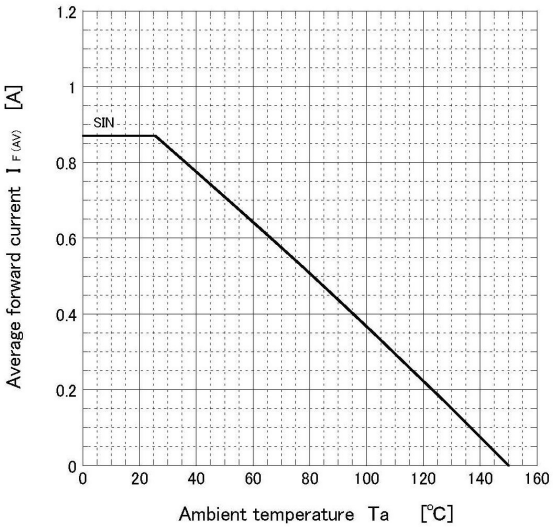


●V_R = 1000V
R-load
Free in air

●Substrate detail

Type	Glass-epoxy
Size	150mm × 90mm
Thickness	1mm
Conductor thickness	70μm
Pattern area	324mm²

Derating curve

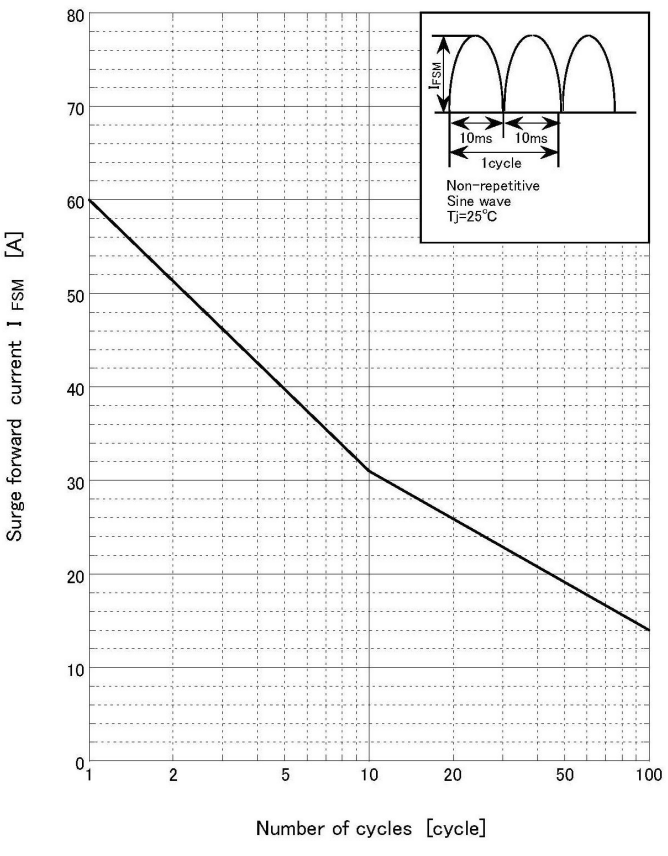


●V_R = 1000V
R-load
Free in air

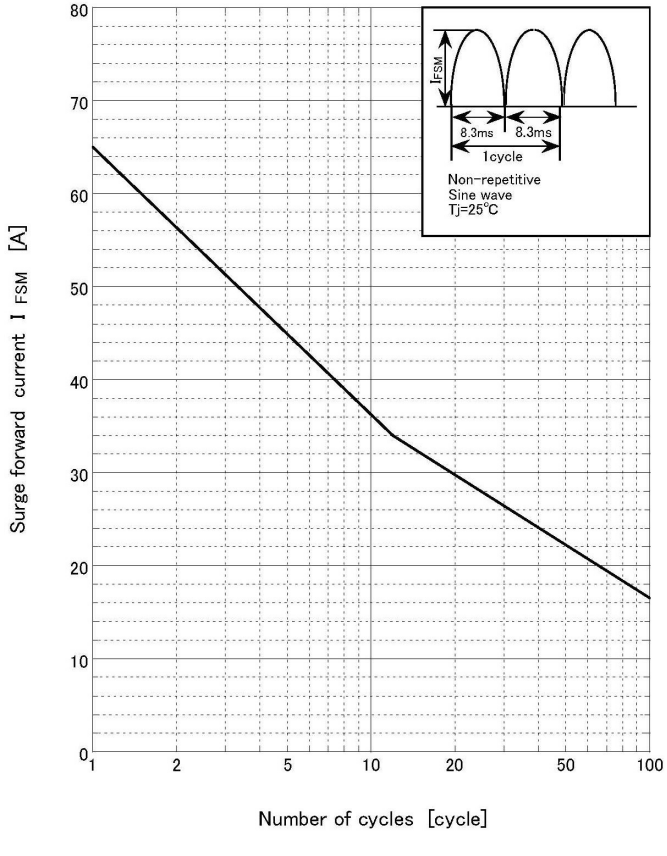
●Substrate detail

Type	Glass-epoxy
Size	80mm × 80mm
Thickness	1mm
Conductor thickness	35μm
Pattern area	174mm²

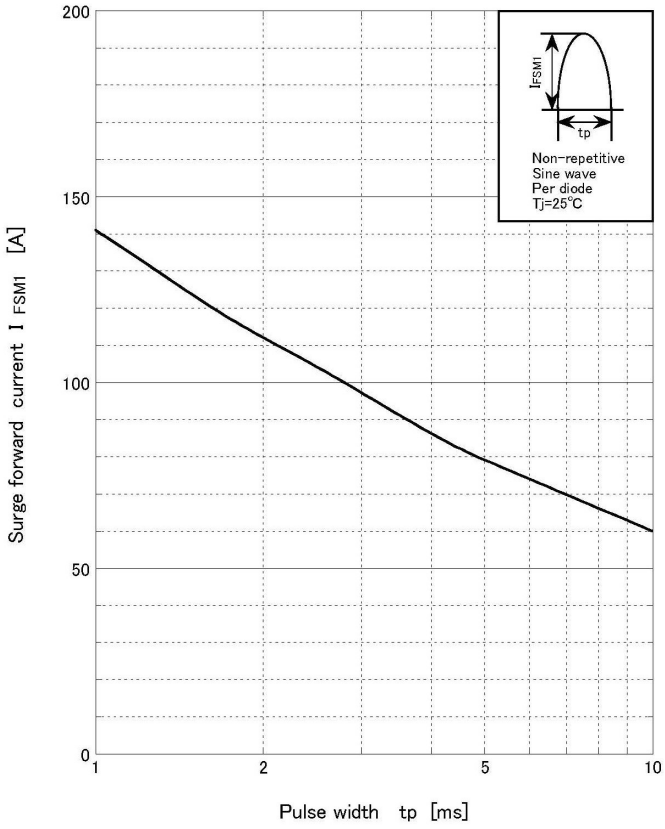
Surge forward current capability



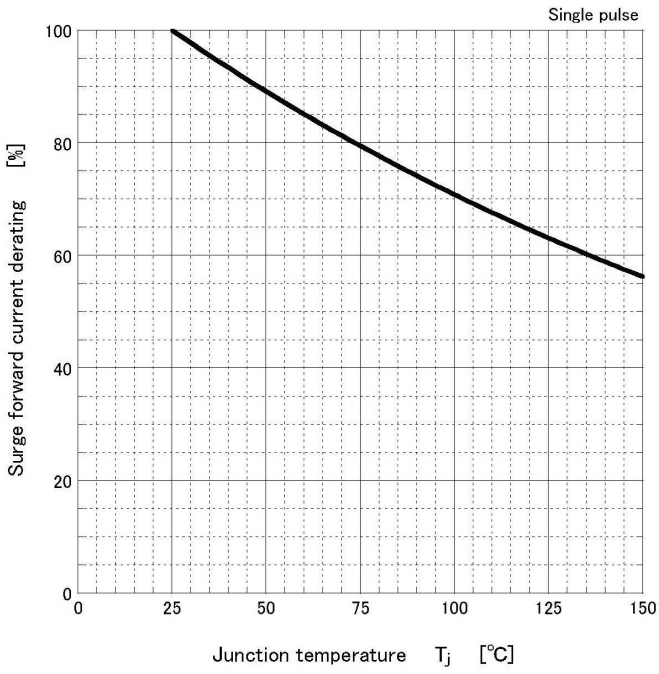
Surge forward current capability

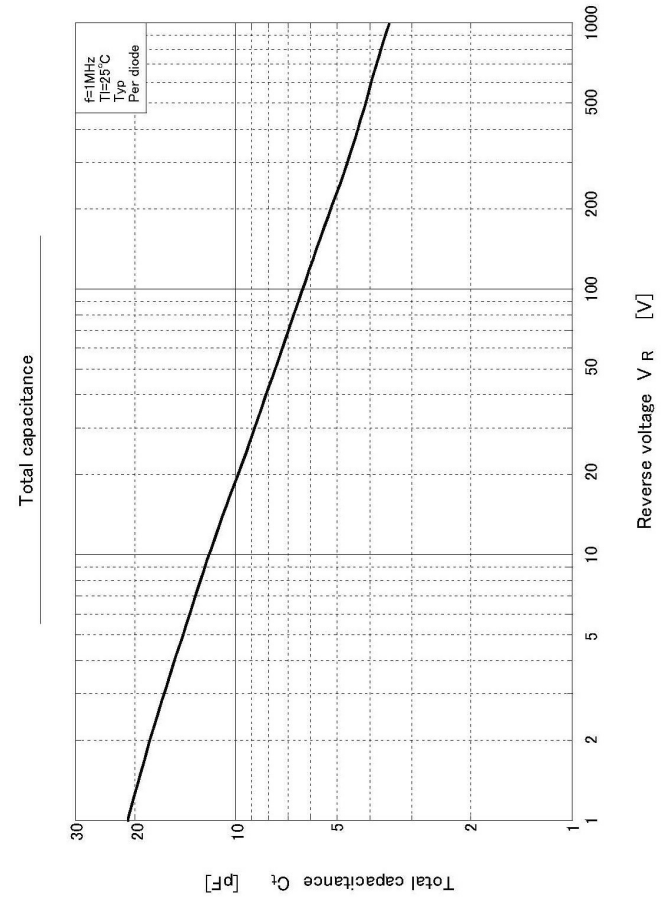


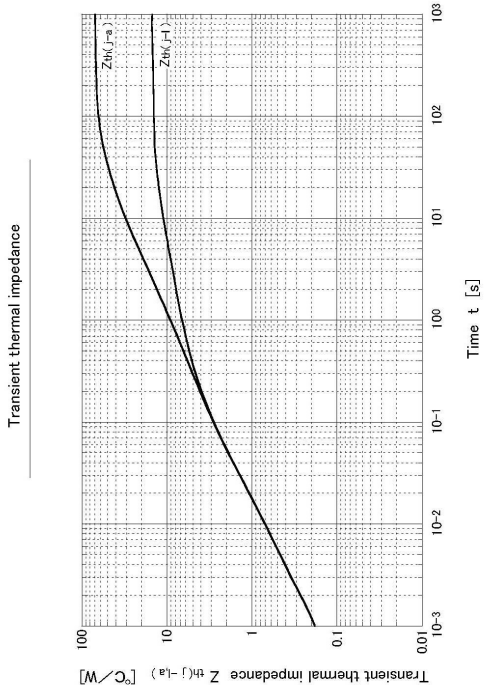
Surge forward current capability



Surge forward current derating
vs Junction temperature



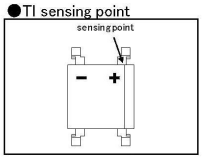




●Substrate detail

Type	Glass-epoxy
Size	50mm×50mm
Thickness	1mm
Conductor thickness	35μm
Pattern area	174mm²

●Tl sensing point



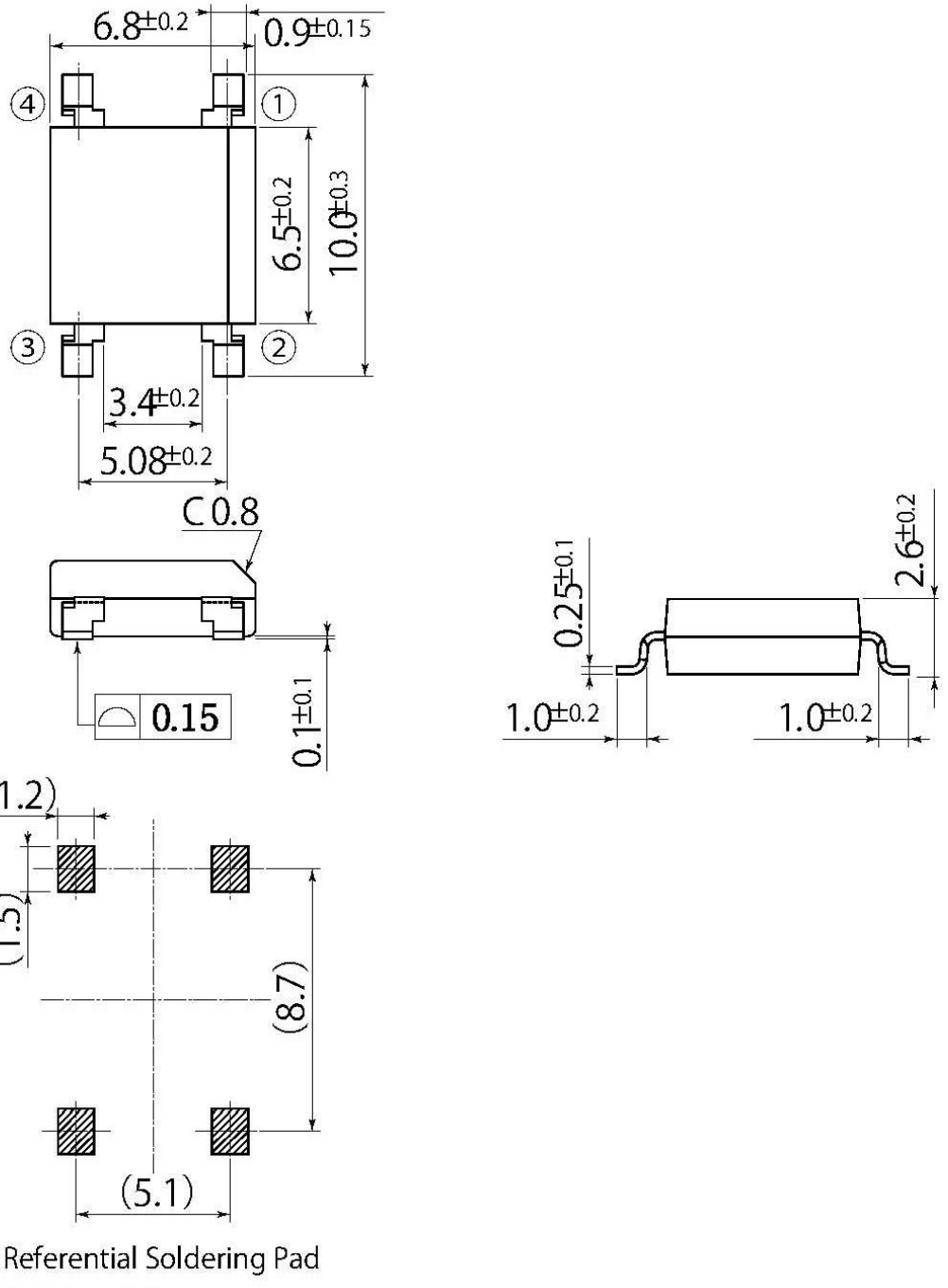
Outline Dimensions

unit:mm

scale: 4/1

C6

JEDEC Code	–
JEITA Code	–
House Name	1NA(SMD)



Referential Soldering Pad

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

Notes

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