

# D1UBA80

Bridge Diodes  
800V, 1.0A

## Feature

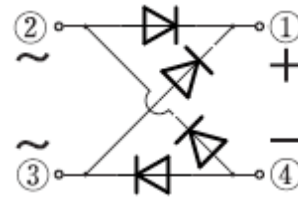
- SMD
- Pb free terminal
- RoHS:Yes

## OUTLINE

Package (House Name): SOPA-4



## 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 <sub>RRM</sub>		800	V
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, Tl=100°C	1	A
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, On alumina substrate, Ta=25°C ※	1	A
Surge forward current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25°C	30	A
Current squared time	I <sup>2</sup> t	1ms ≤ tp < 10ms, Tj=25°C, per diode	3	A <sup>2</sup> s

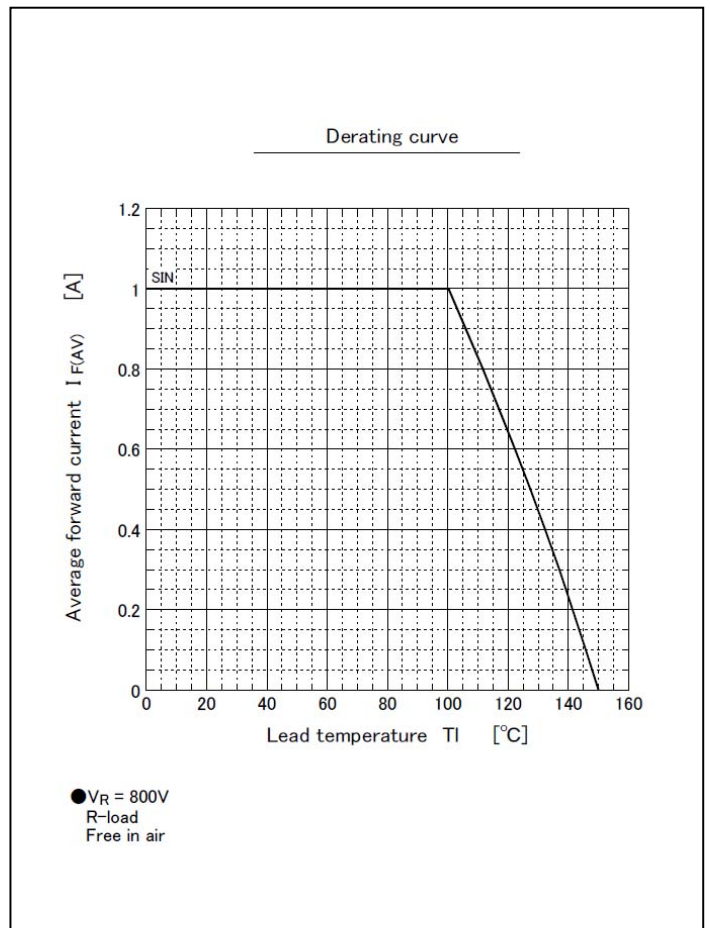
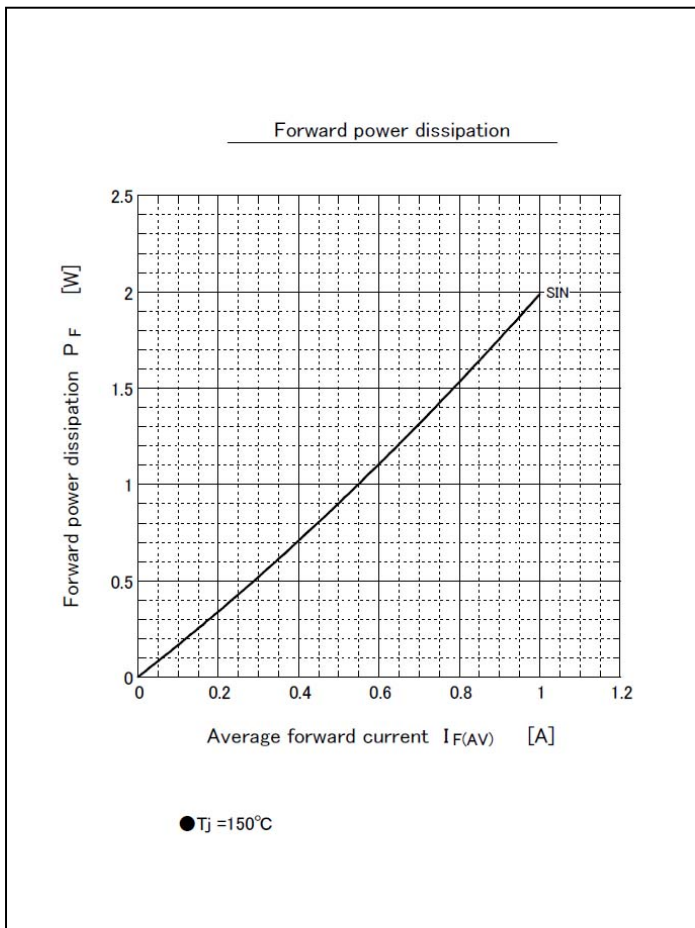
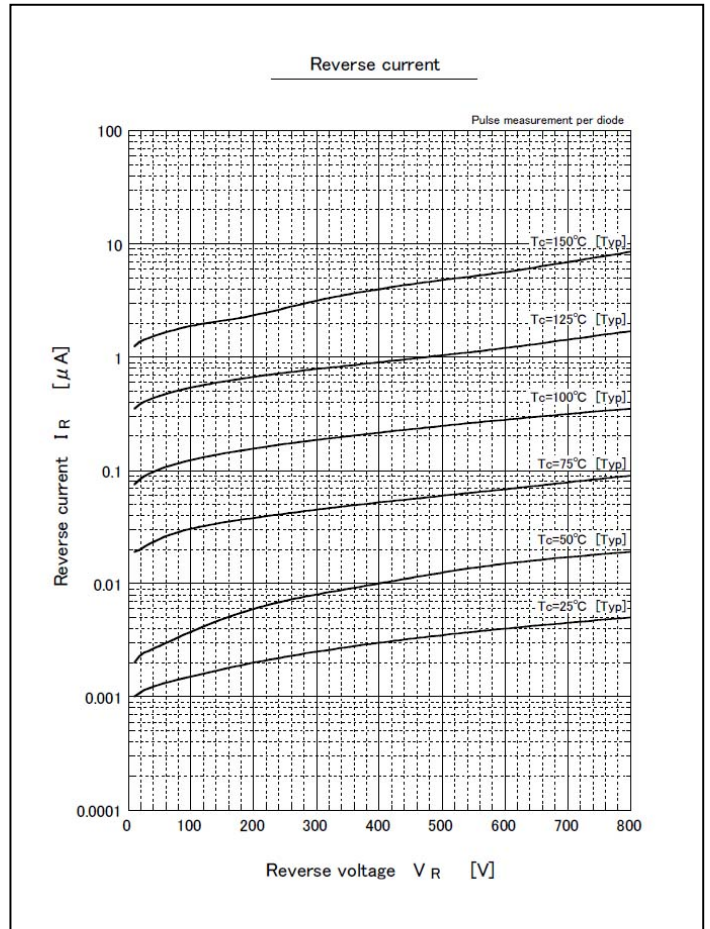
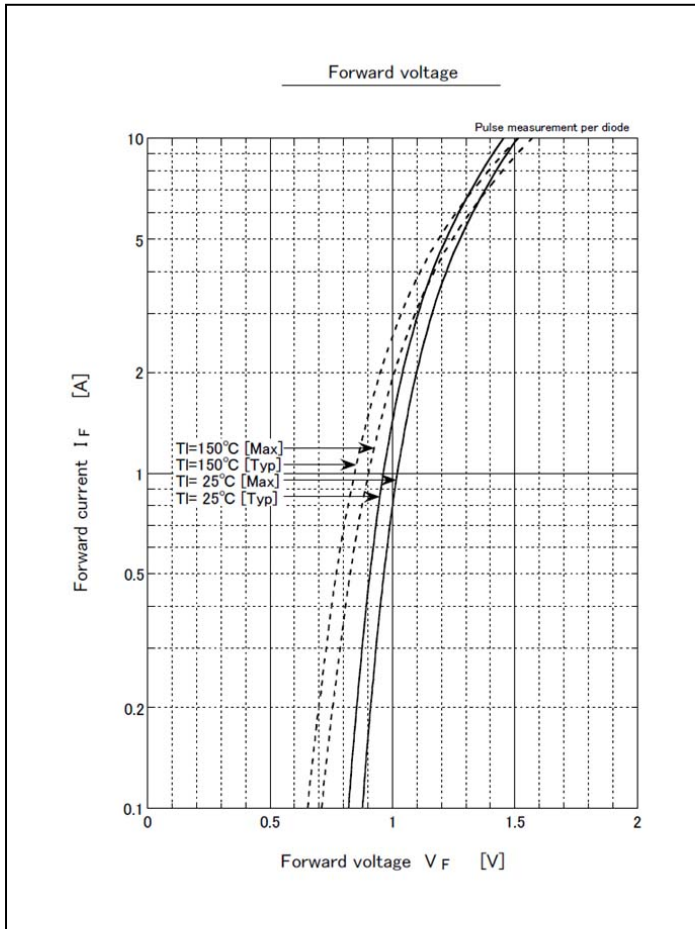
※ : See the original Specifications

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

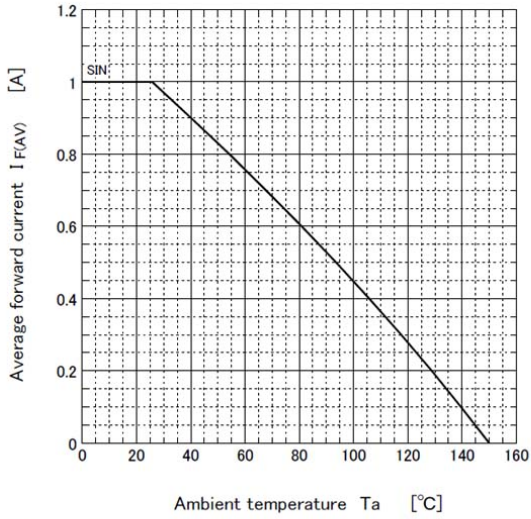
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	$V_F$	IF=0.4A, Pulse measurement, per diode			0.95	V
Reverse current	$I_R$	VR=800V, Pulse measurement, per diode			10	$\mu$ A
Thermal resistance	Rth(j-l)	Junction to lead			25	°C/W
Thermal resistance	Rth(j-a)	Junction to ambient, On alumina substrate ※			62.5	°C/W

※ :See the original Specifications

# CHARACTERISTIC DIAGRAMS



Derating curve

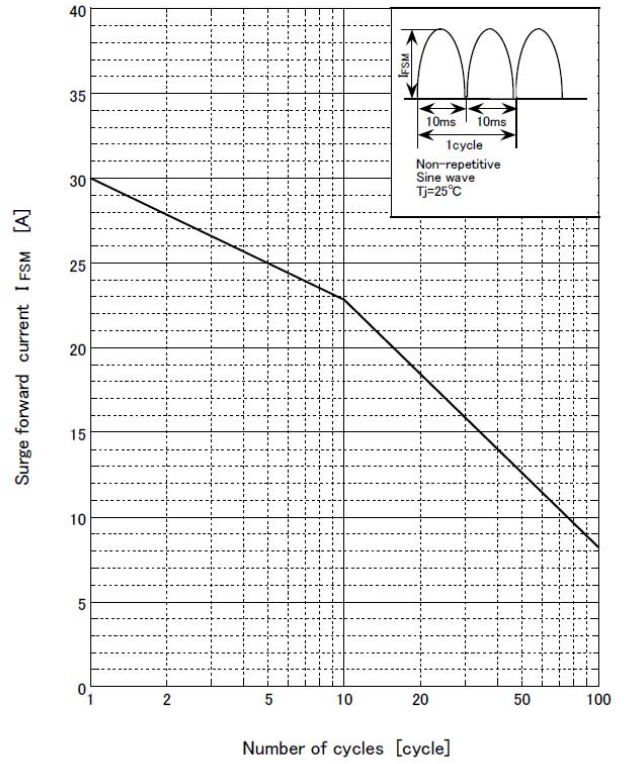


●  $V_R = 800V$   
R-load  
Free in air

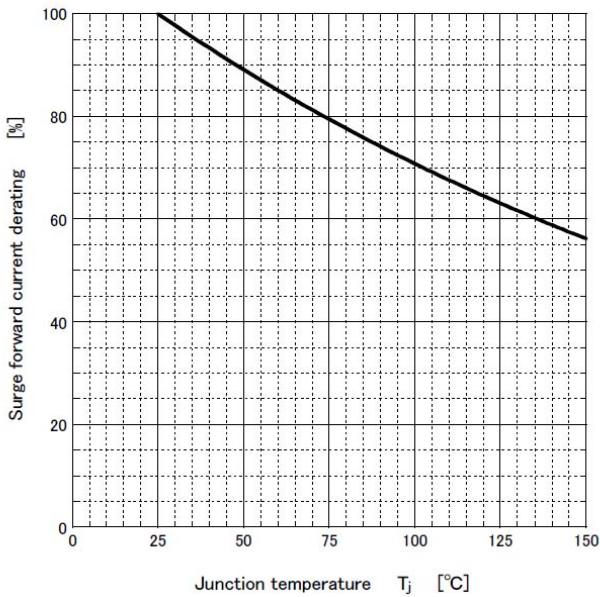
● Substrate detail

Type	Alumina
Size	2 inch <sup>2</sup>
Thickness	0.64mm
Conductor thickness	20 $\mu m$
Pattern area	262.1mm <sup>2</sup>

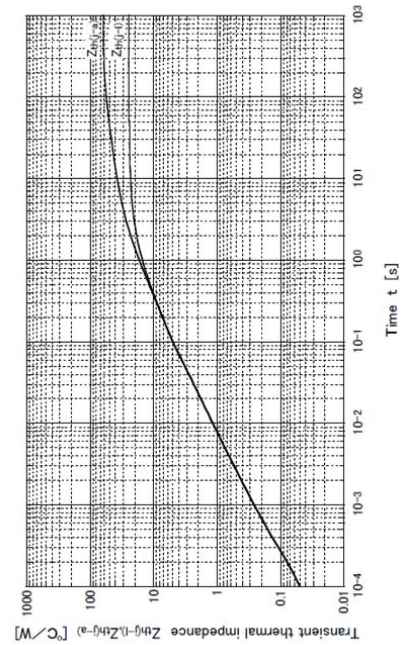
Surge forward current capability



Surge forward current derating vs Junction temperature



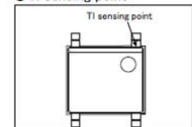
Transient thermal impedance



● Substrate detail

Type	Alumina
Size	2 inch <sup>2</sup>
Thickness	0.64mm
Conductor thickness	20 $\mu m$
Pattern area	262.1mm <sup>2</sup>

● TI sensing point



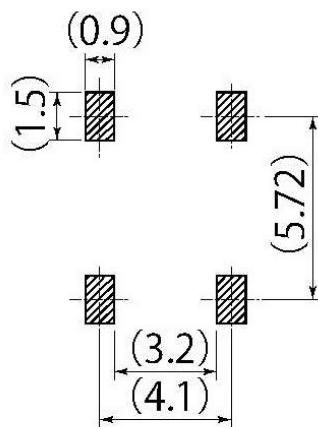
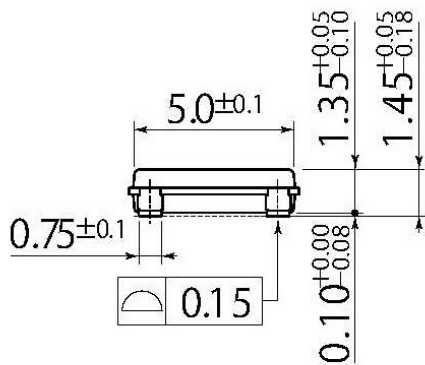
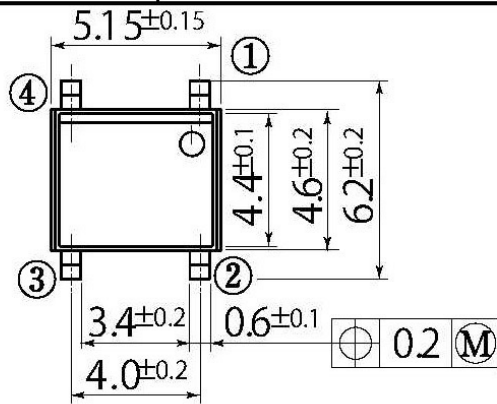
# Outline Dimensions

unit:mm

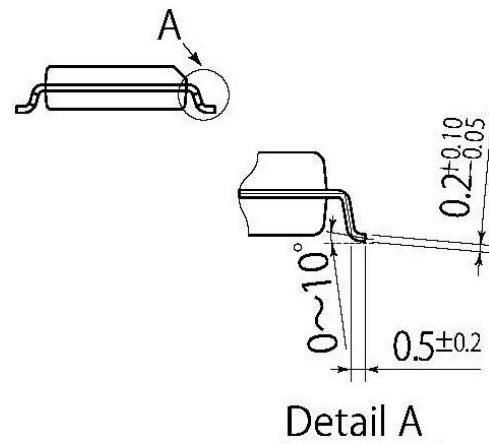
scale: 4/1

C1

JEDEC Code	-
JEITA Code	-
House Name	SOPA-4



Referential Soldering Pad



Detail A

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

## Notes

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