

D1UBA80

Bridge Diodes

800V, 1.0A

Feature

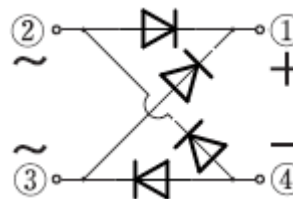
- SMD
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): SOPA-4



Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T _{stg}		-55 to 150	°C
Junction temperature	T _j		-55 to 150	°C
Repetitive peak reverse voltage	V _{RRM}		800	V
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, Tl=100°C	1	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On alumina substrate, Ta=25°C ※	1	A
Surge forward current	I _{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25°C	30	A
Current squared time	I ² t	1ms ≤ tp < 10ms, Tj=25°C, per diode	3	A ² s

※ :See the original Specifications

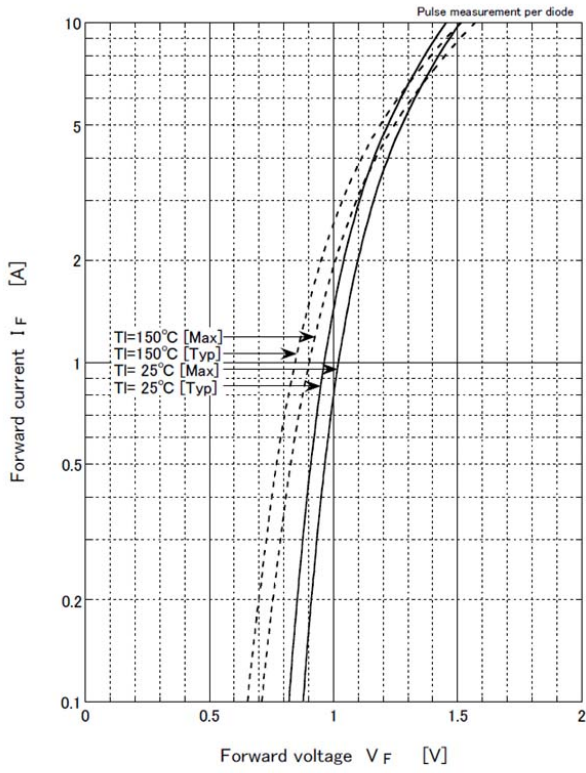
Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	$I_F=0.4A$, Pulse measurement, per diode			0.95	V
Reverse current	I_R	$V_R=800V$, Pulse measurement, per diode			10	μA
Thermal resistance	$R_{th(j-l)}$	Junction to lead			25	$^{\circ}C/W$
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On alumina substrate *			62.5	$^{\circ}C/W$

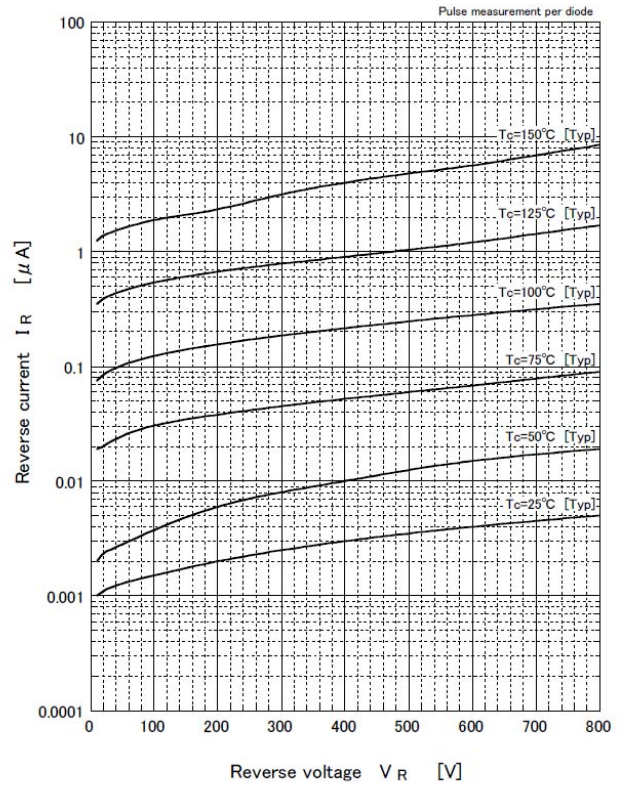
* : See the original Specifications

CHARACTERISTIC DIAGRAMS

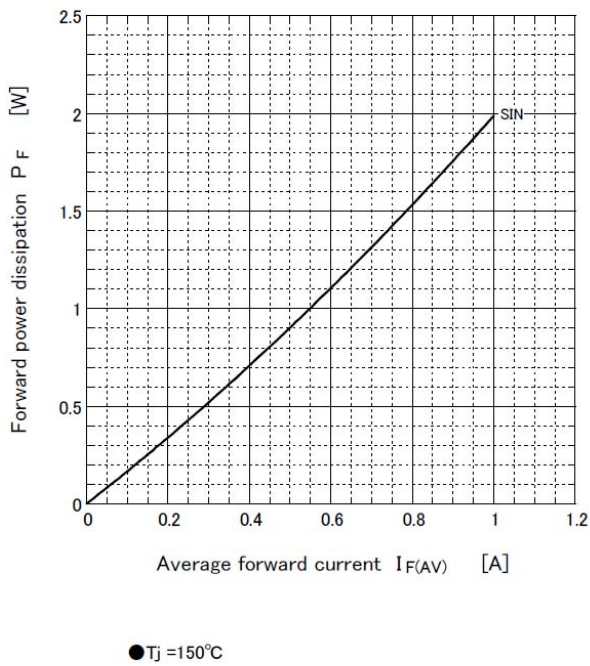
Forward voltage



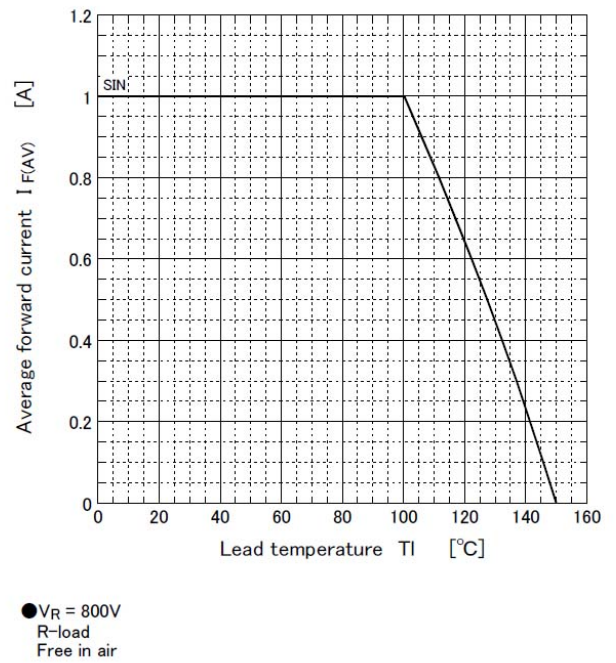
Reverse current



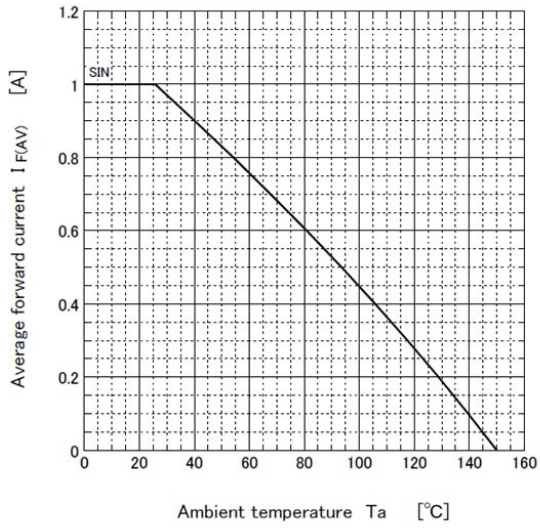
Forward power dissipation



Derating curve



Derating curve

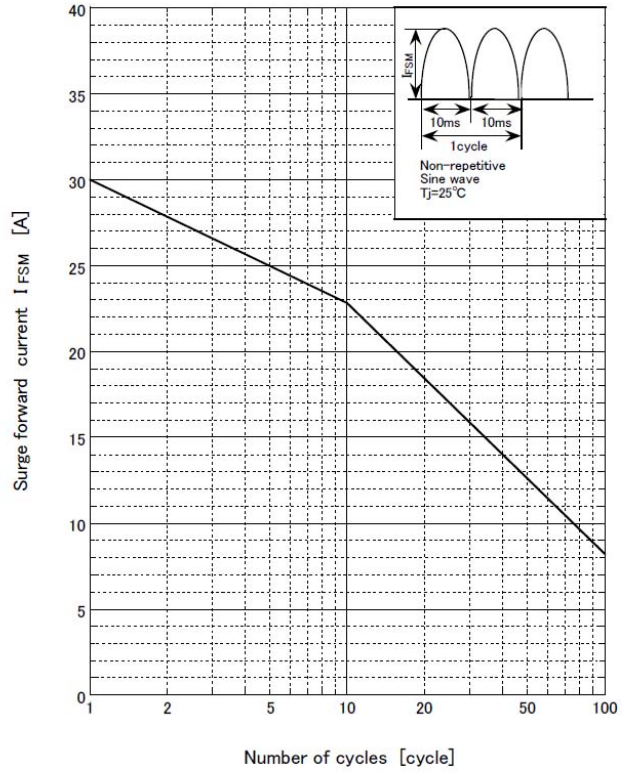


● $V_R = 800V$
R-load
Free in air

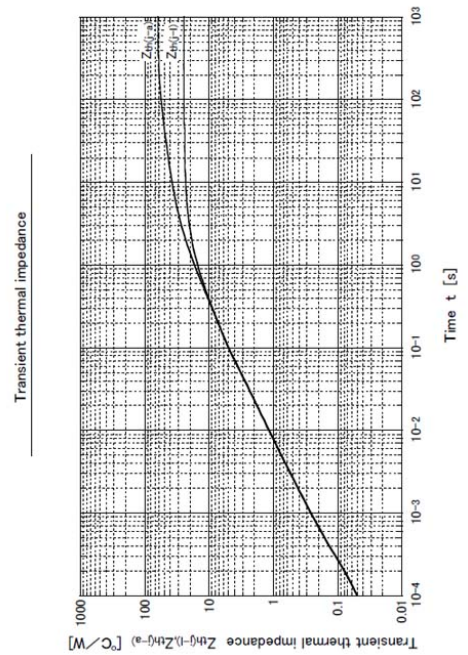
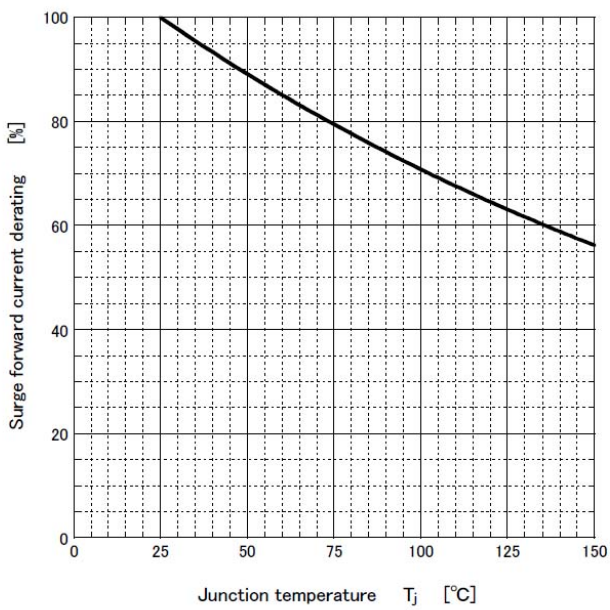
● Substrate detail

Type	Alumina
Size	2 inch ²
Thickness	0.64mm
Conductor thickness	20 μm
Pattern area	262.1mm ²

Surge forward current capability



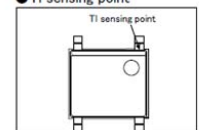
Surge forward current derating vs Junction temperature



● Substrate detail

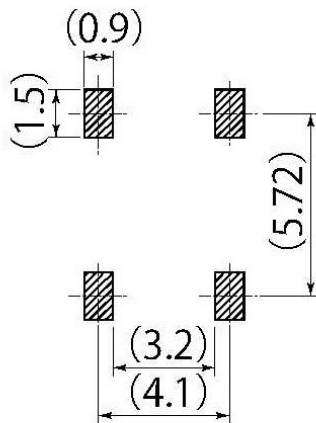
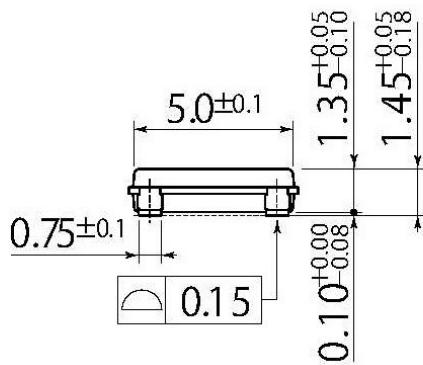
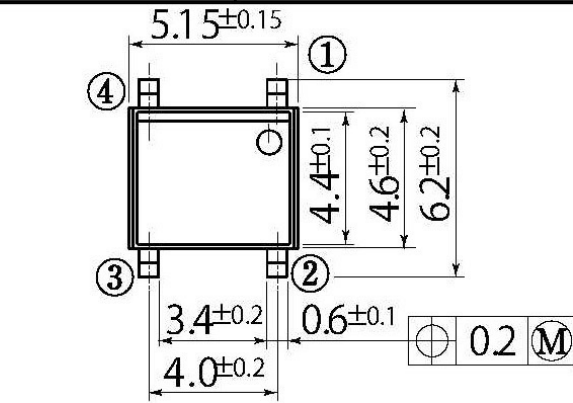
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● TI sensing point

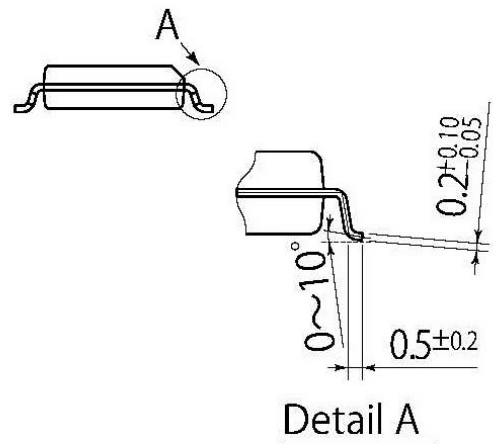


C1

JEDEC Code	-
JEITA Code	-
House Name	SOPA-4



Referential Soldering Pad



Detail A

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

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