

S2WB(A)80-7101

Bridge Diodes

800V, 2.0A

Feature

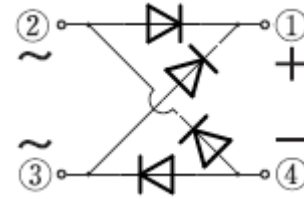
- Small DIP (There is also SMD)
- High I_{FSM}
- High Reliability
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): 1W



Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T _{stg}		-40 to 150	°C
Junction temperature	T _j		-40 to 150	°C
Repetitive peak reverse voltage	V _{RRM}		800	V
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Tl=112°C *	2	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C *	1	A
Surge forward current	I _{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, T _j =25°C	50	A
Surge forward current	I _{FSM1}	t _p =1ms, sine wave, Non-repetitive, peak value, per diode, T _j =25°C	178	A
Current squared time	I ² t	1ms ≤ t _p < 10ms, T _j =25°C, per diode	16	A ² s

* : See the original Specifications

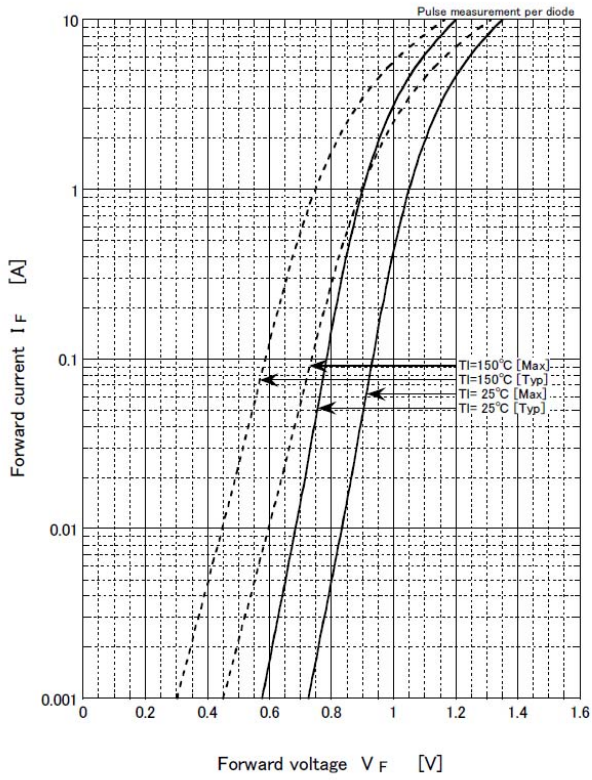
Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	$I_F=1A$, Pulse measurement, per diode			1.05	V
Reverse current	I_R	$V_R=800V$, Pulse measurement, per diode			10	μA
Thermal resistance	$R_{th(j-l)}$	Junction to lead, On glass-epoxy substrate *			10	$^{\circ}C/W$
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On glass-epoxy substrate *			65	$^{\circ}C/W$

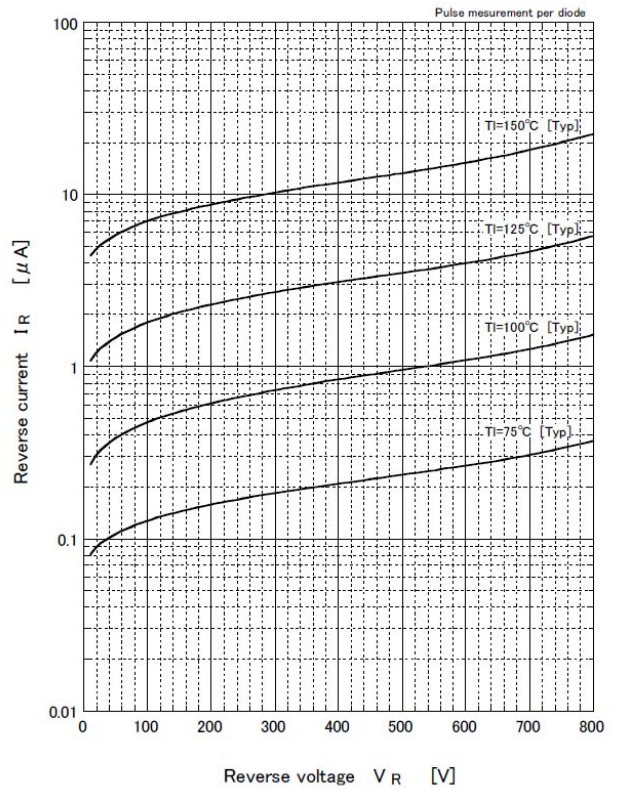
* : See the original Specifications

CHARACTERISTIC DIAGRAMS

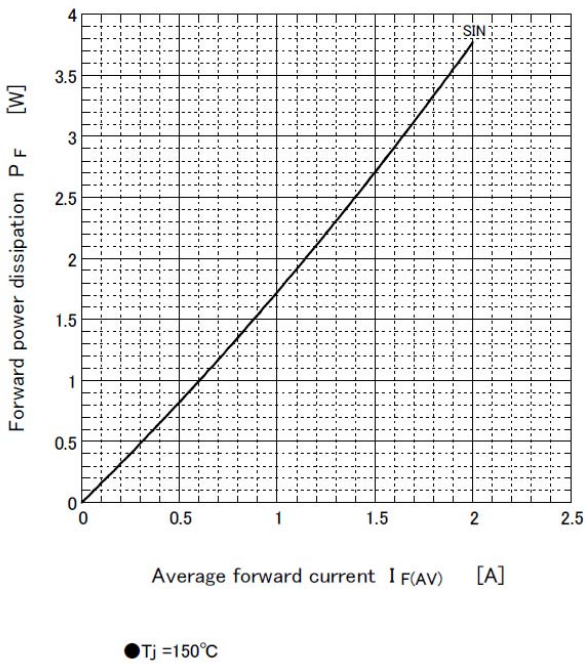
Forward voltage



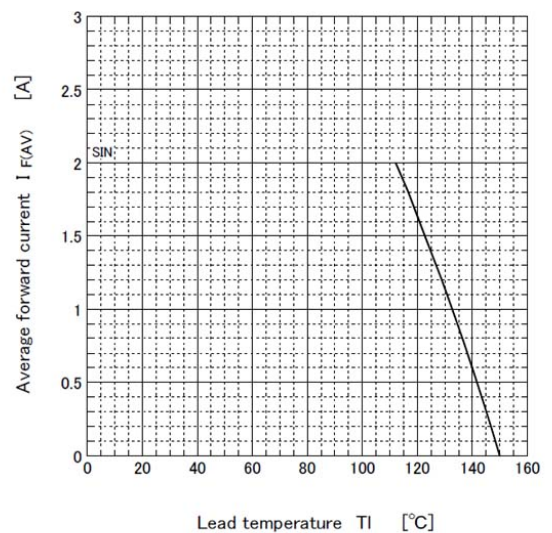
Reverse current



Forward power dissipation



Derating curve

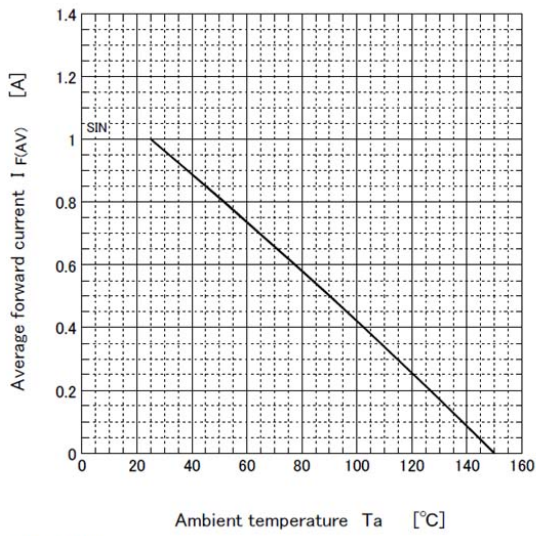


$V_R = 800\text{V}$
 R-load
 Free in air

Substrate detail

Item	
Substrate	Glass-epoxy
Substrate thickness	1mm
Conductor thickness	35 μm

Derating curve

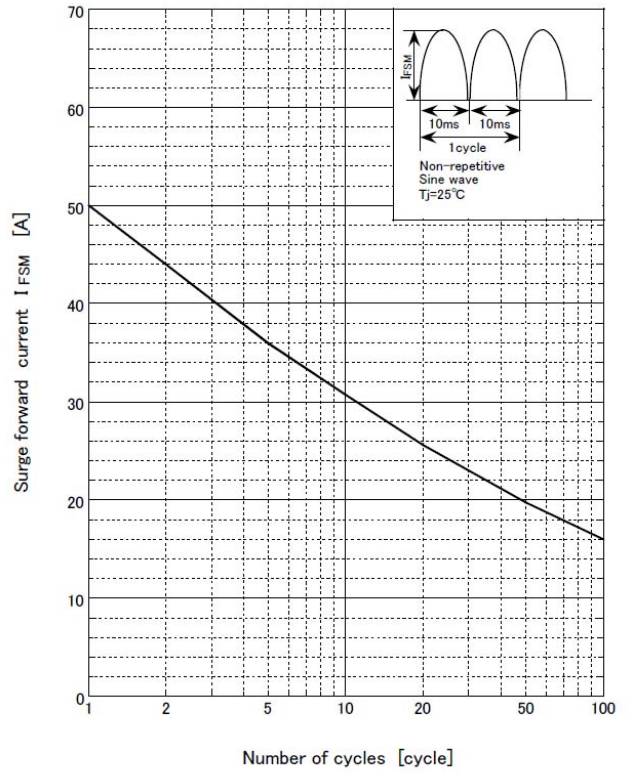


- $V_R = 800V$
- R-load
- Free in air

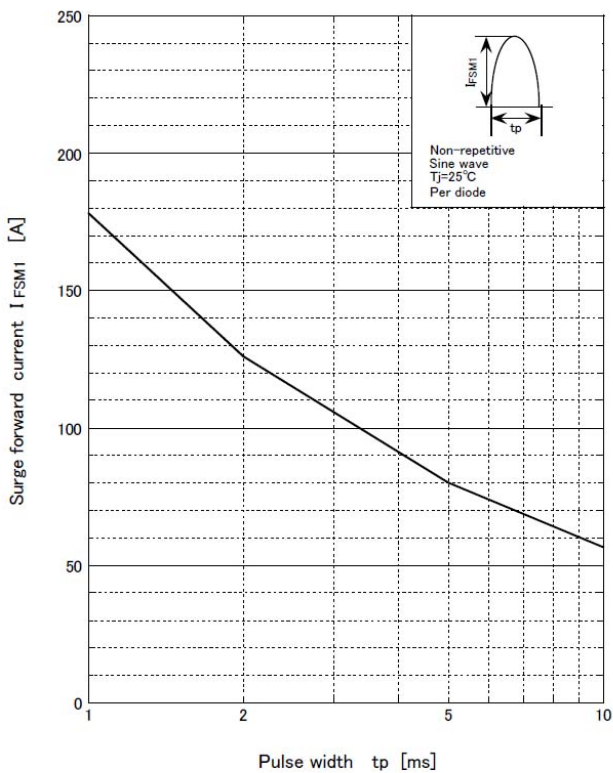
- Substrate detail

Item	
Substrate	Glass-epoxy
Substrate thickness	1mm
Conductor thickness	35 μ m

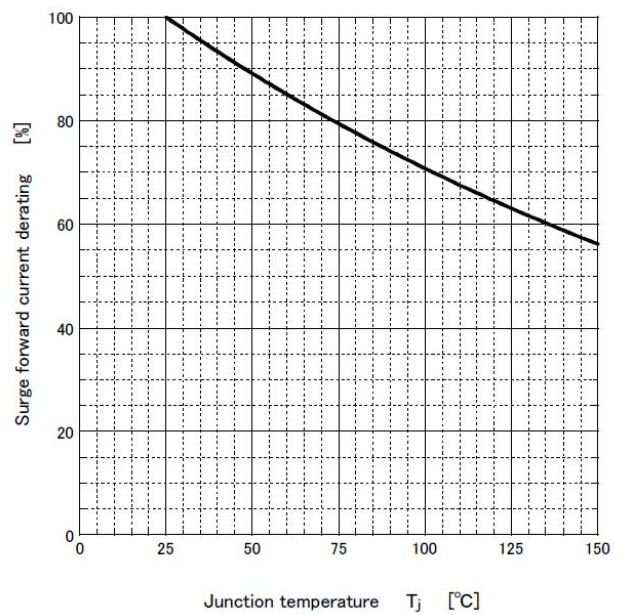
Surge forward current capability



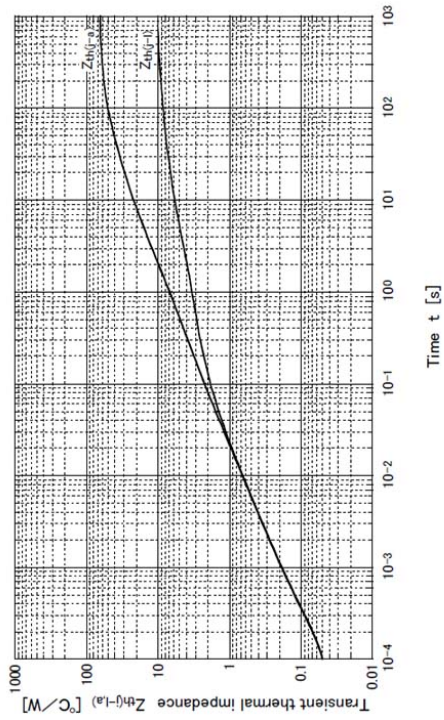
Surge forward current capability



Surge forward current derating vs Junction temperature



Transient thermal impedance

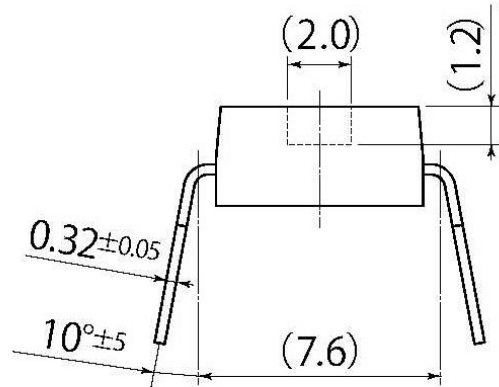
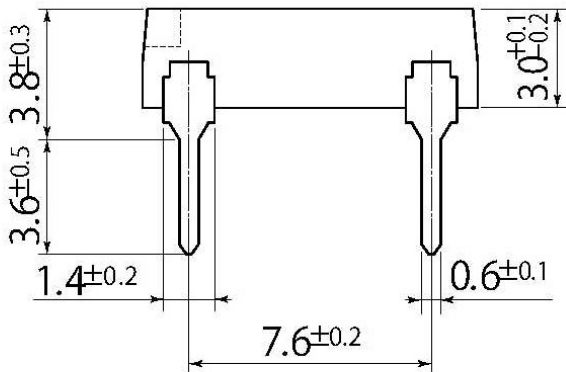
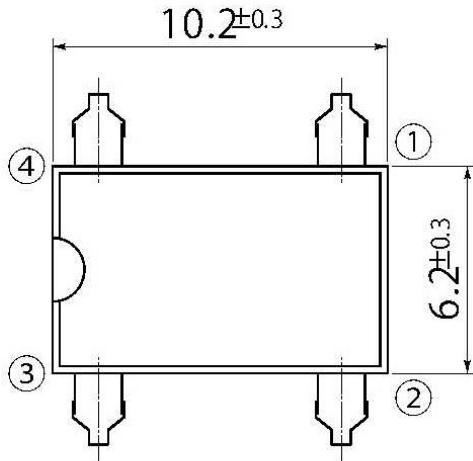


● Substrate detail

Item	
Substrate	Glass-epoxy
Substrate thickness	1mm
Conductor thickness	35μm

C9

JEDEC Code	-
JEITA Code	-
House Name	1W(DIP)



Notes

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