

D15XB80H

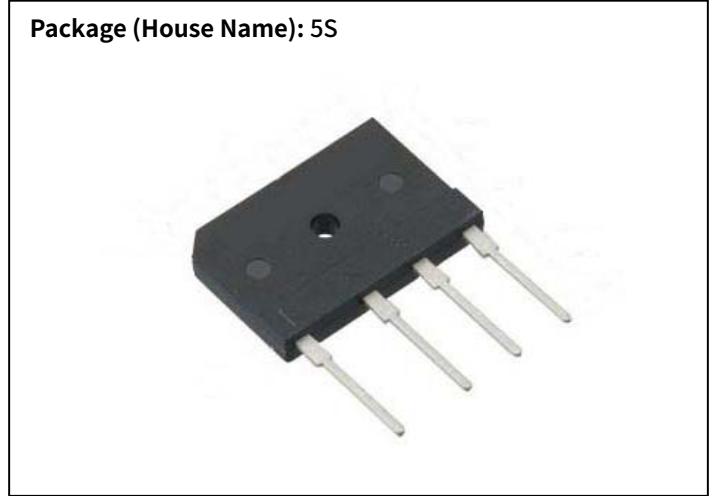
Bridge Diodes
800V, 15A

Feature

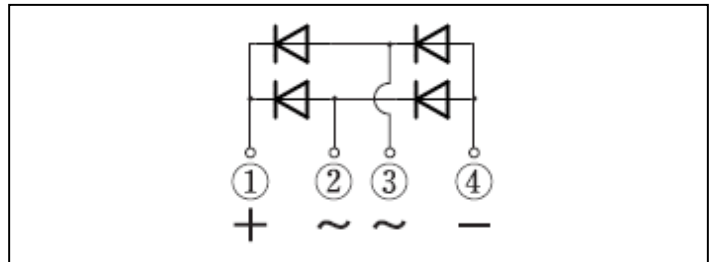
- Compact SIP
- UL E142422
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): 5S



Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	Tstg		-40 to 150	°C
Junction temperature	Tj		-40 to 150	°C
Repetitive peak reverse voltage	V _{RRM}		800	V
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, With heatsink, Tc=107°C	15	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※	3.5	A
Surge forward current	I _{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25°C	240	A
Current squared time	I ² t	1ms ≤ tp < 10ms, Tj=25°C, per diode	200	A ² s
Dielectric strength	Vdis	Terminals to case, AC 1 minute	2.5	kV
Mounting torque	TOR	(Recommended torque : 0.5N·m)	0.8	N·m

※ : See the original Specifications

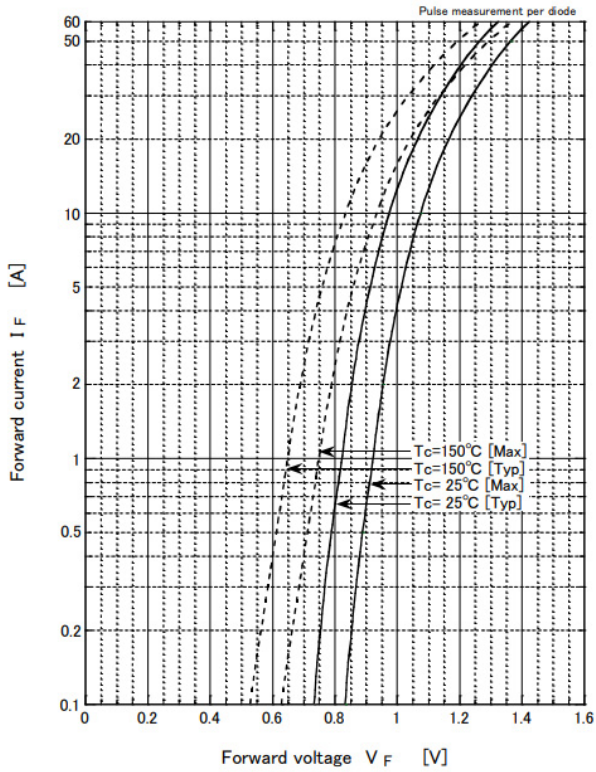
Electrical Characteristics (unless otherwise specified : Tc=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=7.5A, Pulse measurement, per diode			1.05	V
Reverse current	I_R	VR=800V, Pulse measurement, per diode			10	μ A
Thermal resistance	Rth(j-c)	Junction to case, With heatsink			1.5	°C/W
Thermal resistance	Rth(j-l)	Junction to lead, On glass-epoxy substrate ※			5	°C/W
Thermal resistance	Rth(j-a)	Junction to ambient, On glass-epoxy substrate ※			22	°C/W

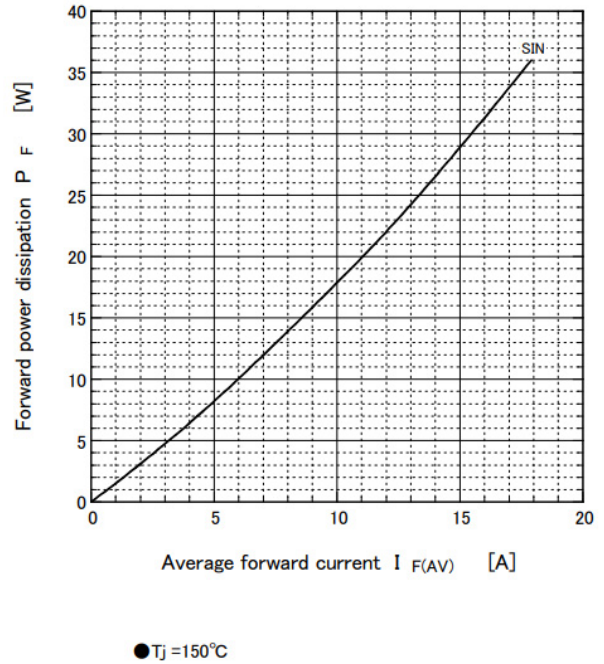
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

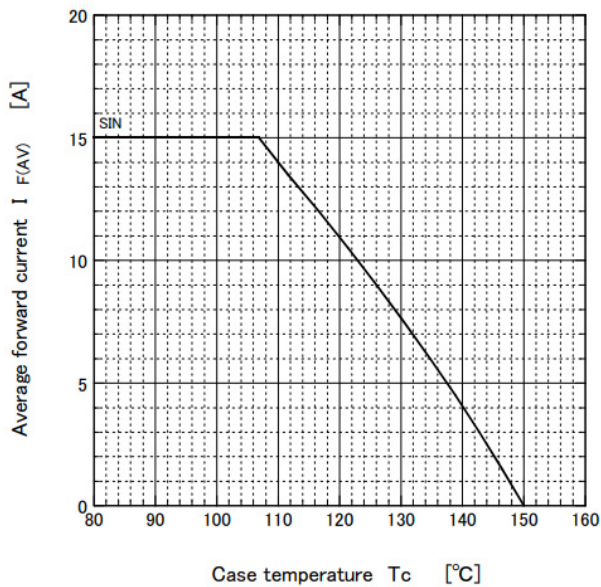
Forward voltage



Forward power dissipation

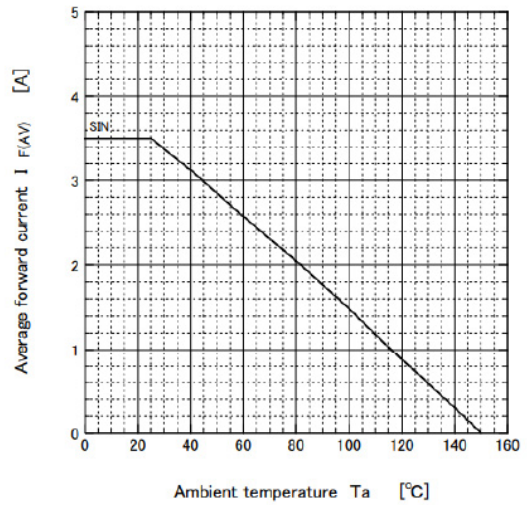


Derating curve



● $V_R = 800\text{V}$
R-load
With heatsink

Derating curve

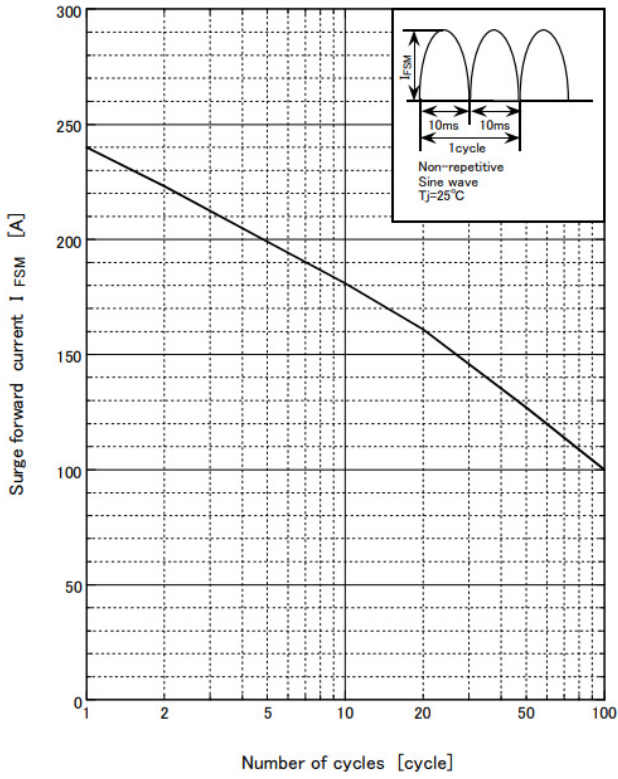


● $V_R = 800\text{V}$
R-load
Free in air

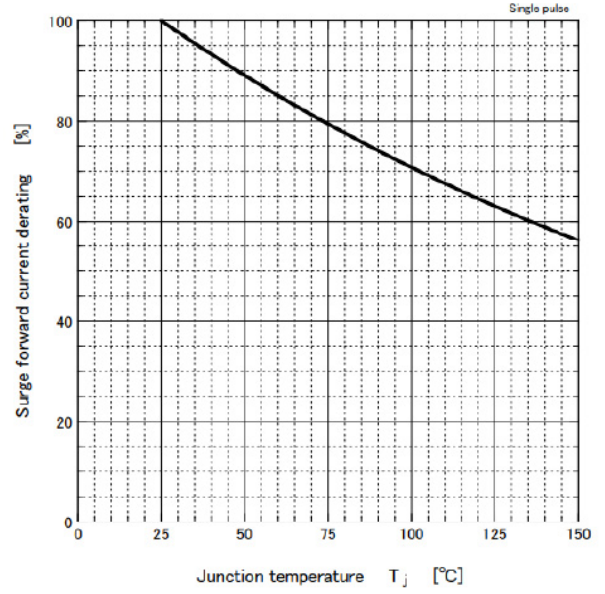
● Substrate detail

Type	Glass-epoxy
Size	80mm x 150mm
Thickness	1mm
Conductor thickness	35 μm
Pattern area	1107mm ²

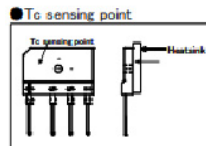
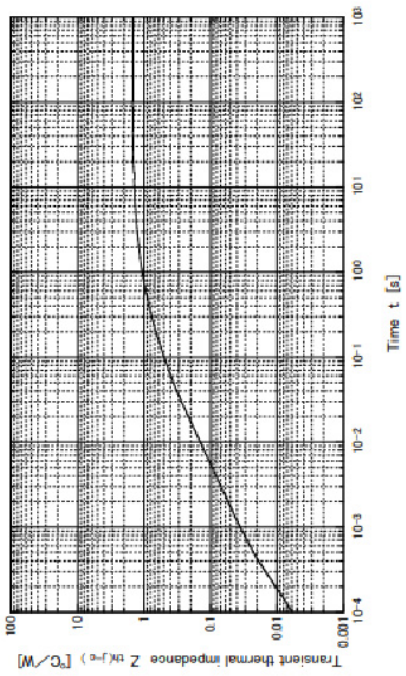
Surge forward current capability



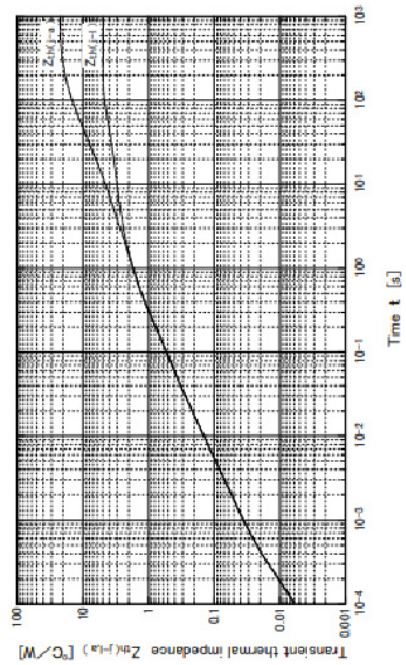
Surge forward current derating vs Junction temperature



Transient thermal impedance



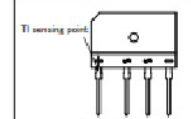
Transient thermal impedance



● Substrate detail

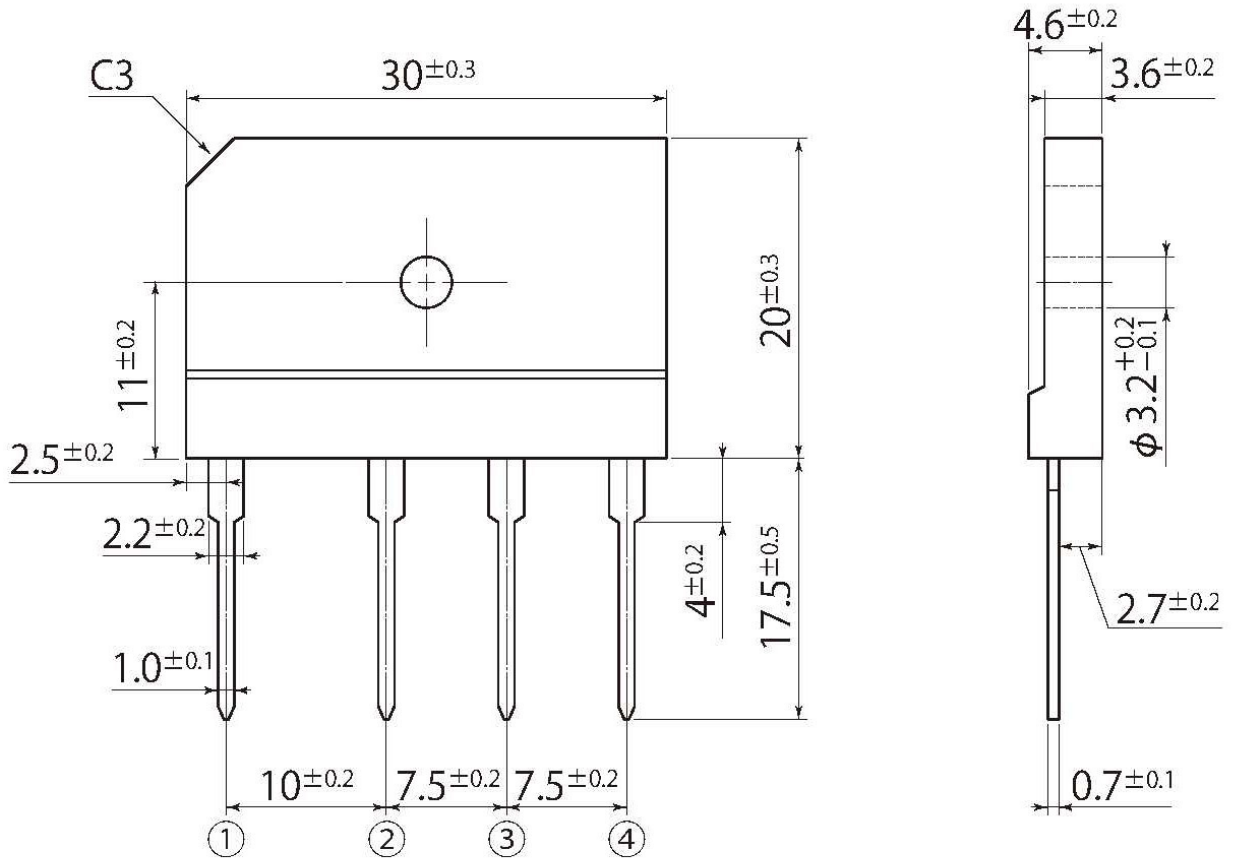
Type	Clear epoxy
Size	Max 4 mm
Thickness	1mm
Conductor thickness	35 μm
Pattern area	180mm ²

● T_l sensing point



D4

JEDEC Code	-
JEITA Code	-
House Name	5S



Notes

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