

# D10SBS4

## Bridge Diodes

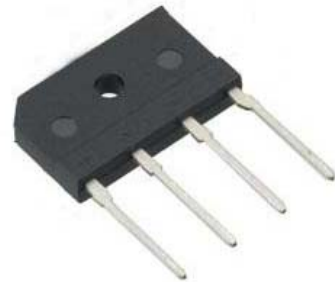
40V, 10A

### Feature

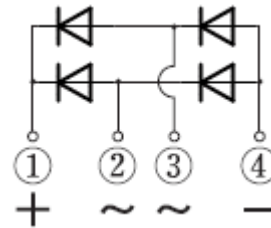
- Compact SIP
- SBD Bridge
- High Recovery Speed
- Low  $V_F$
- Pb free terminal
- RoHS:Yes

### OUTLINE

Package (House Name): 3S



### Equivalent circuit



### Absolute Maximum Ratings (unless otherwise specified : $T_c=25^\circ\text{C}$ )

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	$T_{stg}$		-55 to 150	$^\circ\text{C}$
Junction temperature	$T_j$		150	$^\circ\text{C}$
Repetitive peak reverse voltage	$V_{RRM}$		40	V
Non-repetitive peak reverse voltage	$V_{RSM}$	Pulse width 0.5ms, Duty 1/40	45	V
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, With heatsink, $T_c=67^\circ\text{C}$	10	A
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, Without heatsink, $T_a=25^\circ\text{C}$	3.4	A
Surge forward current	$I_{FSM}$	50Hz sine wave, Non-repetitive 1 cycle peak value, $T_j=25^\circ\text{C}$	100	A
Repetitive peak surge reverse power	$P_{RRSM}$	Pulse width 10 $\mu\text{s}$ , per diode, $T_j=25^\circ\text{C}$	330	W
Dielectric strength	$V_{dis}$	Terminals to case, AC 1 minute	2	kV
Mounting torque	TOR	(Recommended torque : 0.5N·m)	0.8	N·m

\* : See the original Specifications

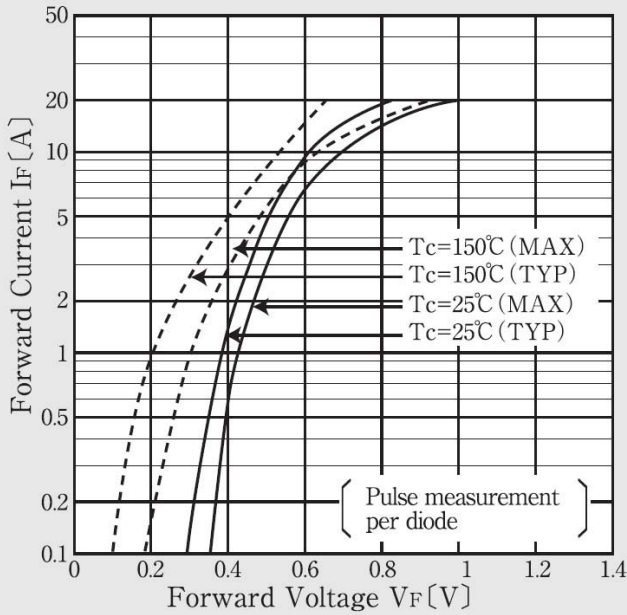
**Electrical Characteristics** (unless otherwise specified : Tc=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =5A, Pulse measurement, per diode			0.55	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =40V, Pulse measurement, per diode			3500	μA
Total capacitance	C <sub>t</sub>	f=1MHz, V <sub>R</sub> =10V, per diode		180		pF
Thermal resistance	R <sub>th(j-c)</sub>	Junction to case, With heatsink			5.5	°C/W
Thermal resistance	R <sub>th(j-l)</sub>	Junction to lead, Without heatsink			6	°C/W
Thermal resistance	R <sub>th(j-a)</sub>	Junction to ambient, Without heatsink			30	°C/W

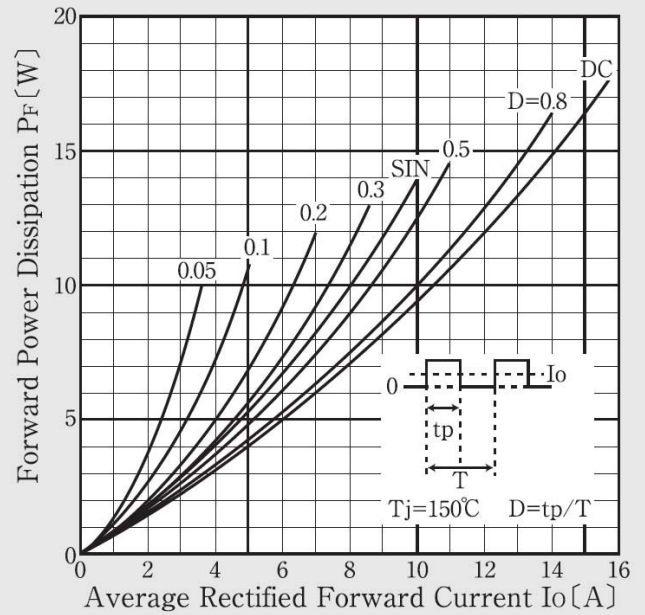
\* :See the original Specifications

# CHARACTERISTIC DIAGRAMS

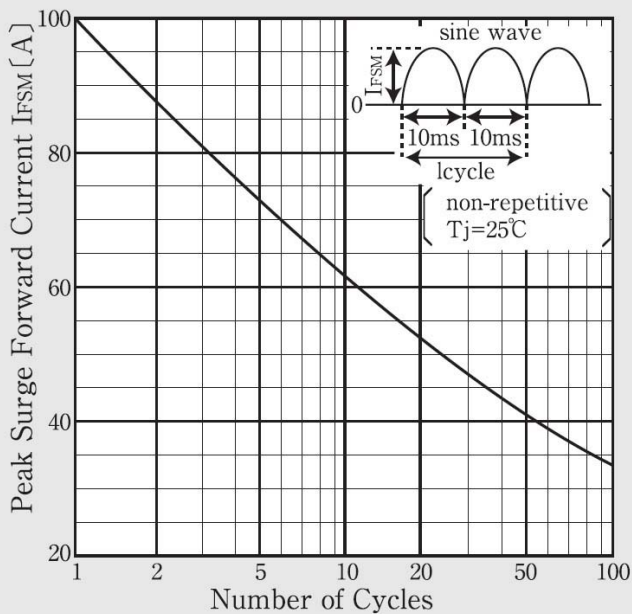
### Forward Voltage



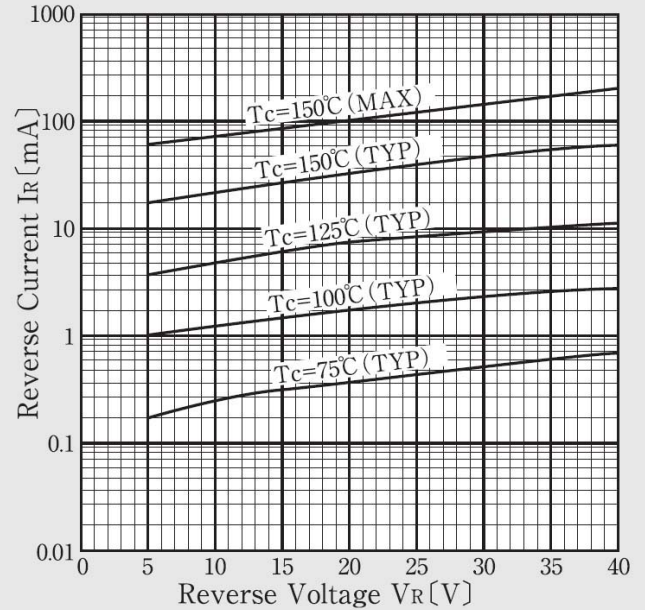
### Forward Power Dissipation



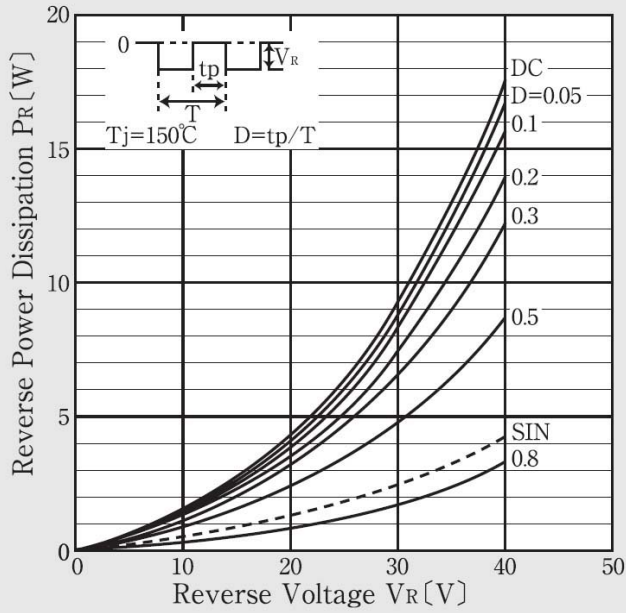
### Peak Surge Forward Current Capability



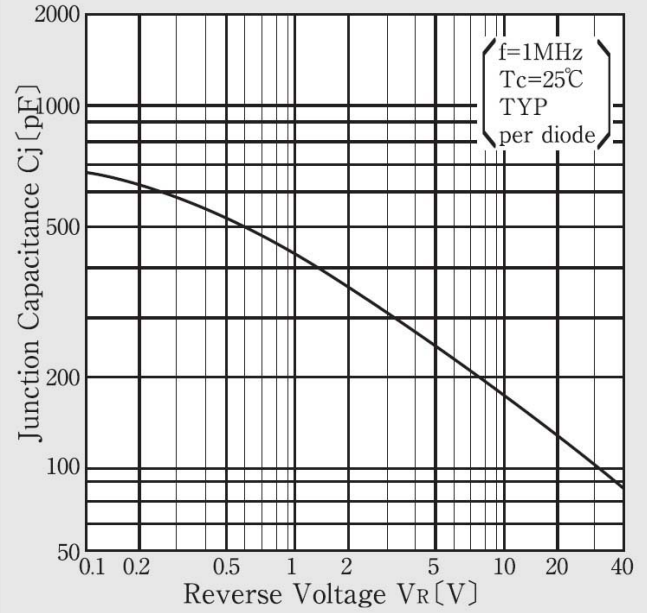
### Reverse Current



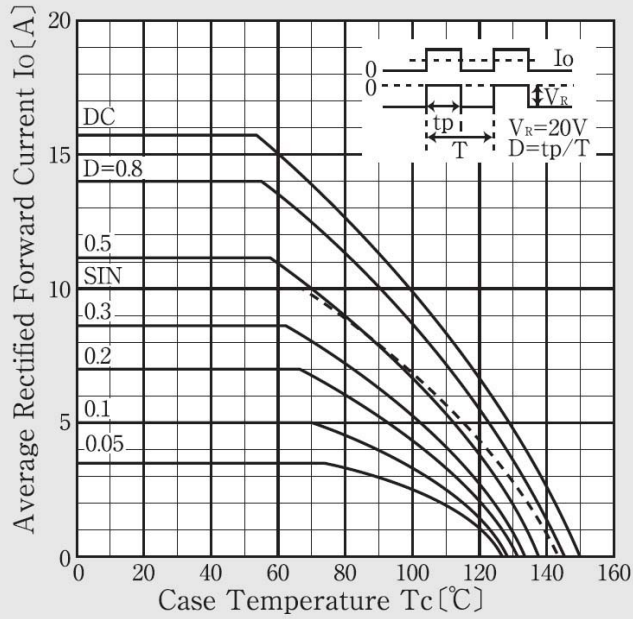
### Reverse Power Dissipation



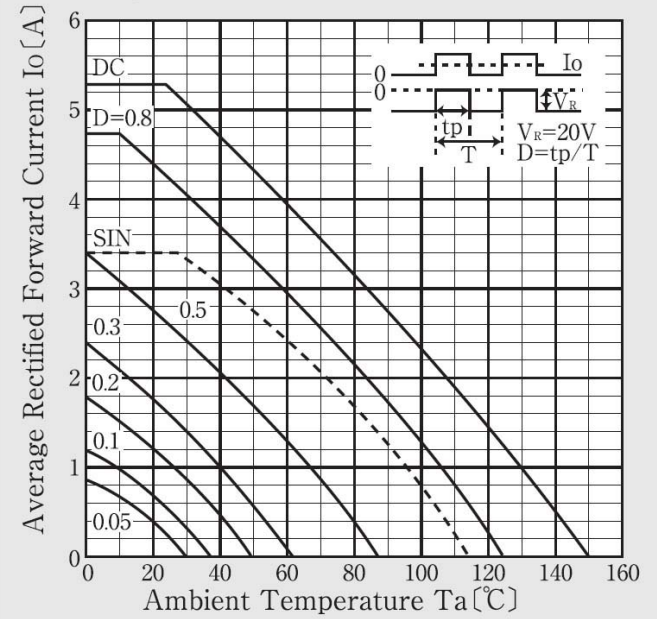
### Junction Capacitance



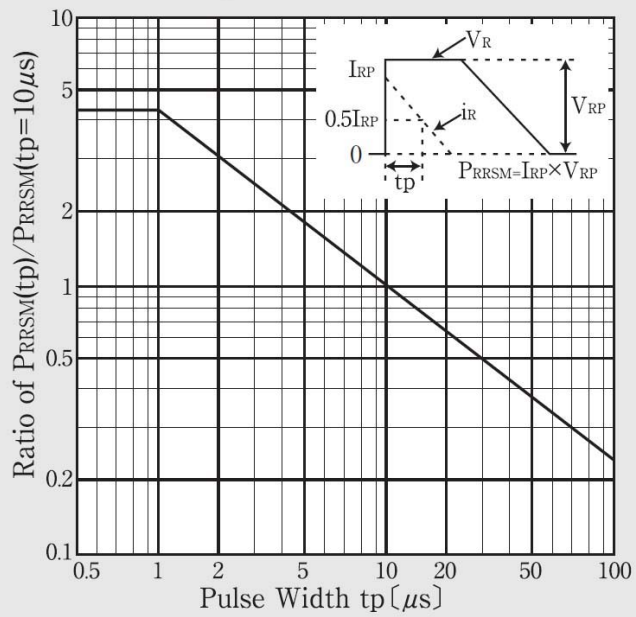
### Derating Curve



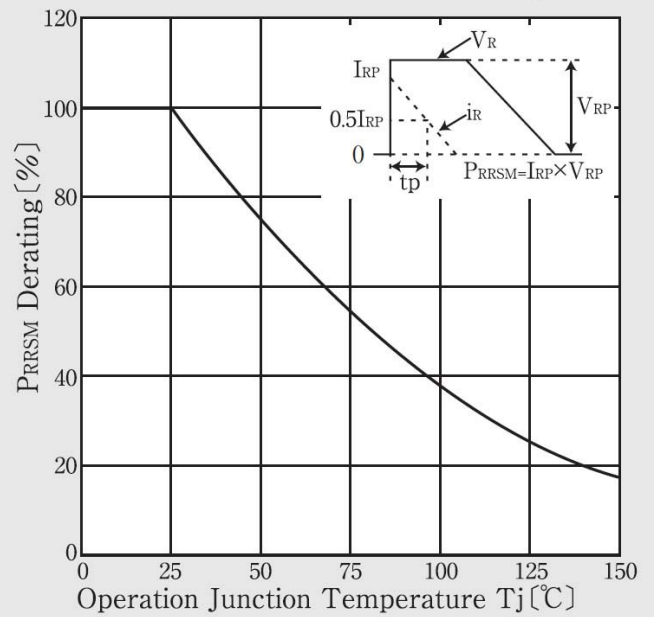
### Derating Curve



### Repetitive Surge Reverse Power Capability

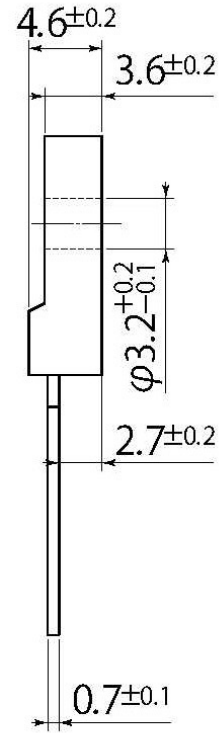
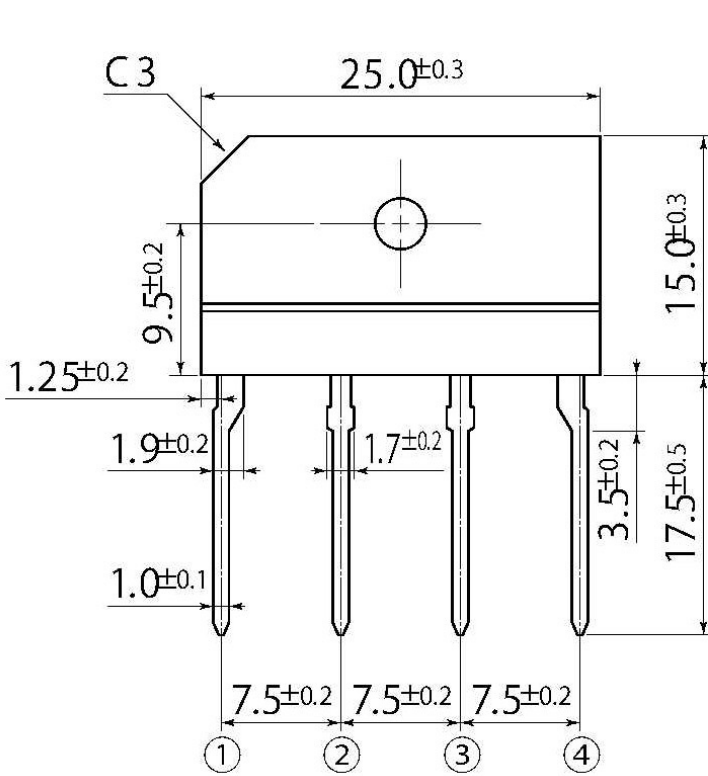


### Repetitive Surge Reverse Power Derating Curve



D3

JEDEC Code	—
JEITA Code	—
House Name	3S



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