ShinDengen

LL25XB60

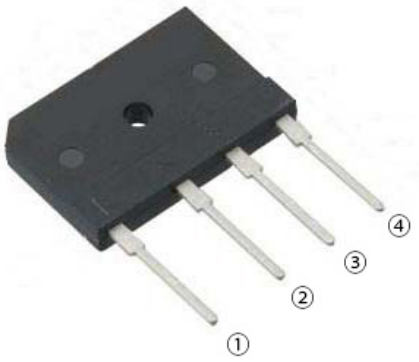
Bridge Diodes
600V, 25A

Feature

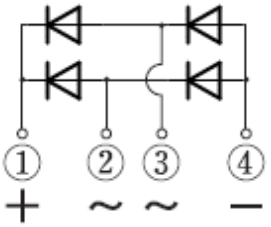
- Compact SIP
- Low Noise
- Low V_F
- UL E142422
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): 5S



Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperrature	Tstg		-55 to 150	°C
Junction temperature	Tj		-55 to 150	°C
Repetitive peak reverse voltage	V_{RRM}		600	V
Average forward current	I_F(AV)	50Hz sine wave, Resistance load, With heatsink, Tc=113°C	25	A
Average forward current	I_F(AV)	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※	3.6	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25°C	300	A
Surge forward current	I_{FSM1}	tp=1ms, sine wave, Non-repetitive, peak value, per diode, Tj=25°C	945	A
Current squared time	I^2t	1ms≦tp＜10ms, Tj=25°C, per diode	450	A^2s
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

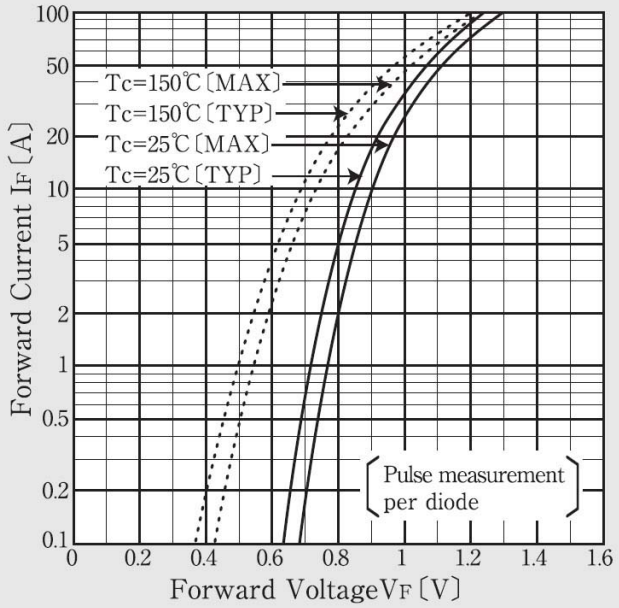
Electrical Characteristics (unless otherwise specified : Tc=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=12.5A, Pulse measurement, per diode		0.87	0.92	V
Reverse current	I_R	VR=600V, Pulse measurement, per diode			10	μA
Reverse recovery time	trr	IF=0.1A, IR=0.1A, 0.1IR, per diode			3000	ns
Thermal resistance	Rth(j-c)	Junction to case, With heatsink			0.8	°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 ※			25	°C/W

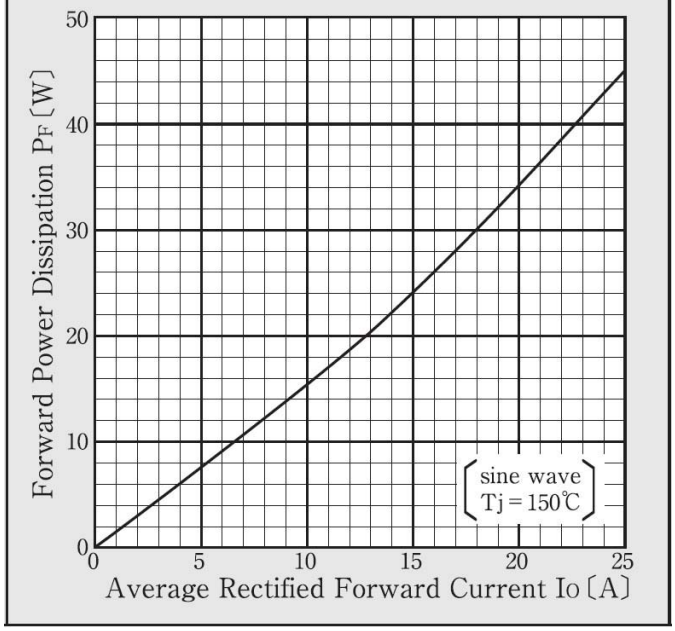
※ ：See the original Specifications

CHARACTERISTIC DIAGRAMS

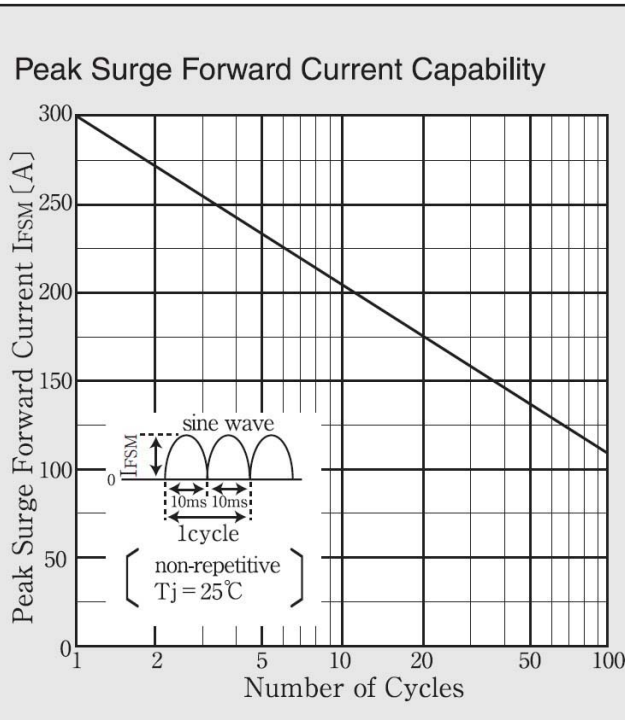
Forward Voltage



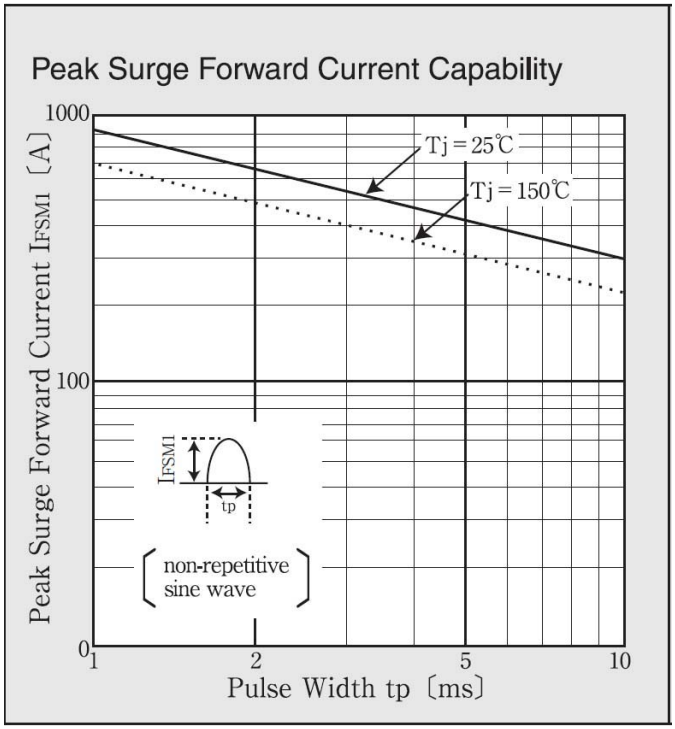
Forward Power Dissipation

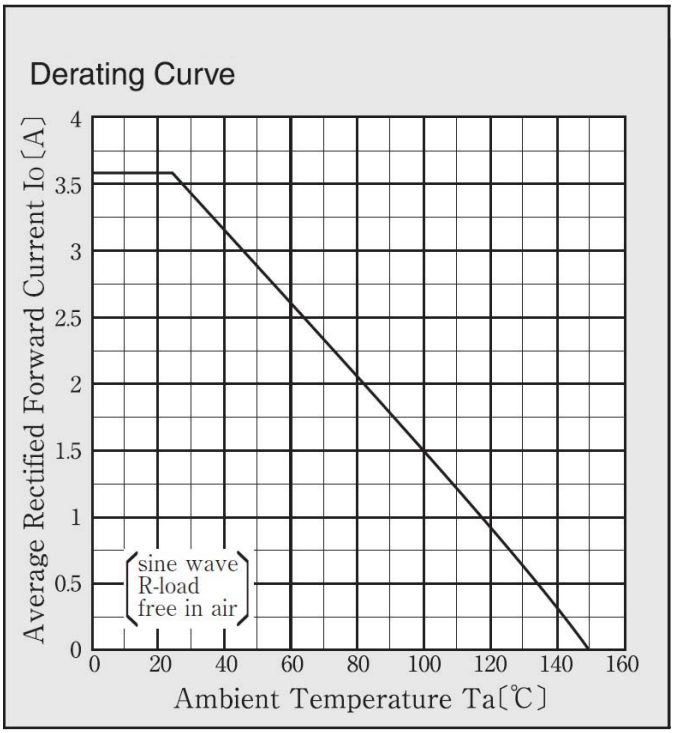


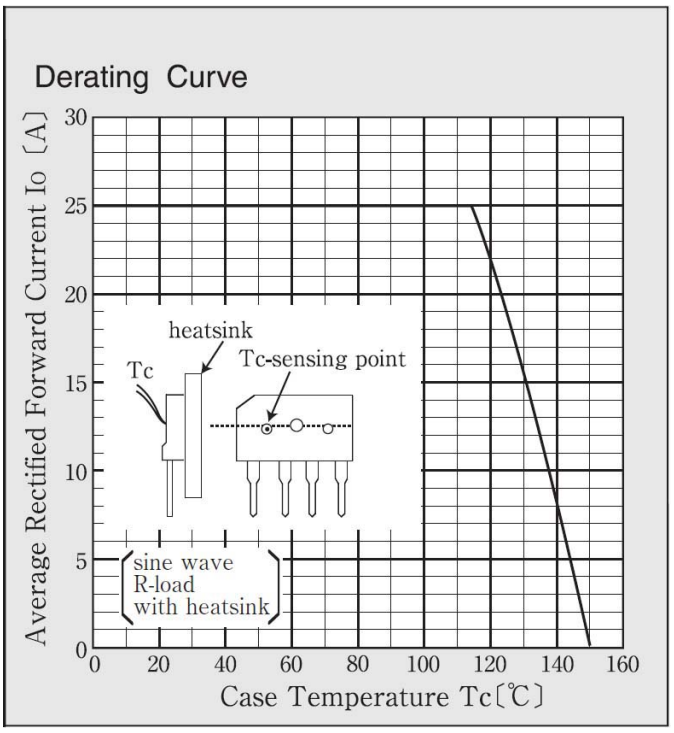
Peak Surge Forward Current Capability



Peak Surge Forward Current Capability




Derating Curve
Average Rectified Forward Current Io〔A〕
4
3.5
3
2.5
2
1.5
1
0.5
0
0
20
40
60
80
100
120
140
160
Ambient Temperature Ta〔℃〕
sine wave
R-load
free in air

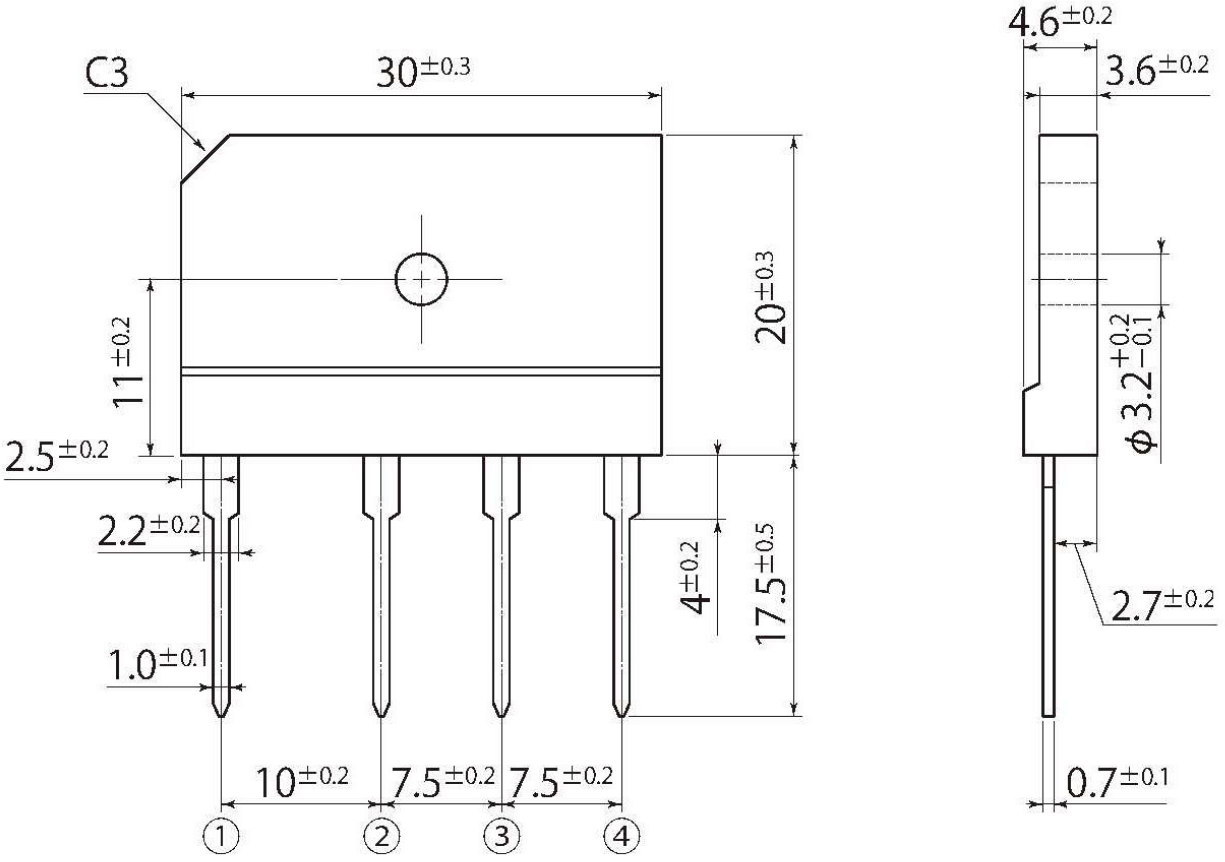

Derating Curve
Average Rectified Forward Current Io〔A〕
30
25
20
15
10
5
0
0
20
40
60
80
100
120
140
160
Case Temperature Tc〔℃〕
heatsink
Tc
Tc-sensing point
sine wave
R-load
with heatsink

Outline Dimensions

unit:mm

D4

JEDEC Code	–
JEITA Code	–
House Name	5S



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