

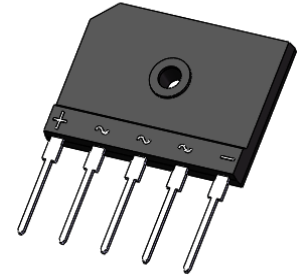
Three Phase Rectifier Power Bridge Reverse Voltage 800~1600V Output Current 35A

Features

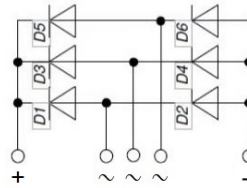
- SIP 3 phase bridge
- Compact package outline in SGBJ
- High forward surge capability

Applications

- Motor control
- Power supplier
- Home appliance



SGBJ



Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	SGBJ35A08	SGBJ35A10	SGBJ35A12	SGBJ35A16	Unit
Maximum repetitive peak reverse voltage	VRRM	800	1000	1200	1600	V
Maximum average output rectified current, with heatsink. T _c typical 100°C	I _o	35				A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load (60HZ)	IFSM	450				A
Rating for fusing (t≤8.3ms)	I ² t	840				A ² s
Dielectric strength, Terminalstocase, AC 1 minute	Vdis	2500				V
Mounting Torque	Tor	Typical		0.5		N.m
		Max.		0.8		
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150				°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Parameter	Test Conditions	Symbol	SGBJ35A08	SGBJ35A10	SGBJ35A12	SGBJ35A16	Unit
Maximum Instantaneous forward voltage	IF=12A, Ta=25°C, per diode	V _F	1.05				Volts
	IF=12A, Ta=125°C, per diode		1.0				
Maximum DC reverse current at rated DC blocking voltage	Ta=25°C	I _R	5.0				μA
	Ta=125°C		500				
Typical thermal resistance	junction to case, with heatsink	R _{θJC}	0.8				°C/W
	junction to ambient, without heatsink	R _{θJA}	12				

Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)

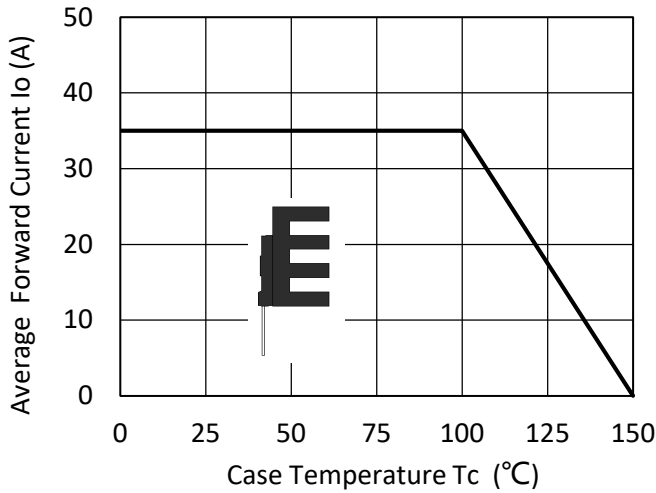


Fig.1 – Power Derating Curve (With heatsink)

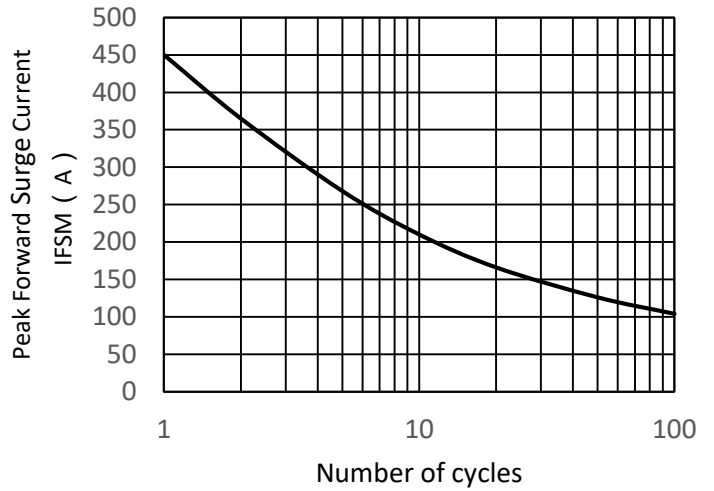


Fig.2 – Maximum Non-Repetitive Peak Forward Surge Current

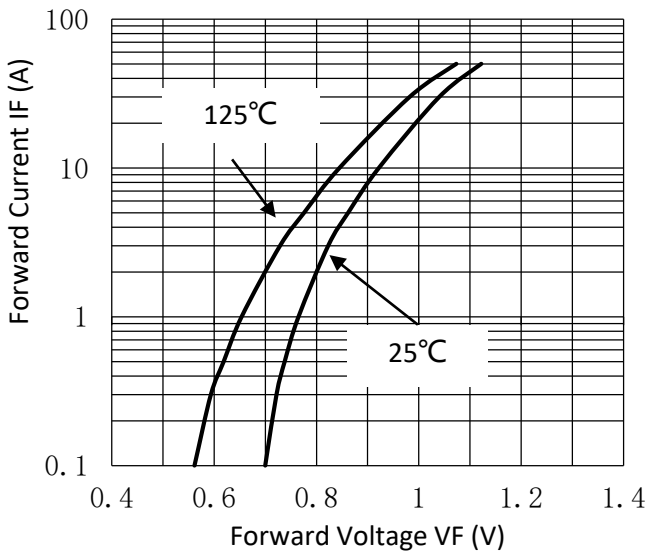


Fig.3 – Typical Instantaneous Forward Characteristics

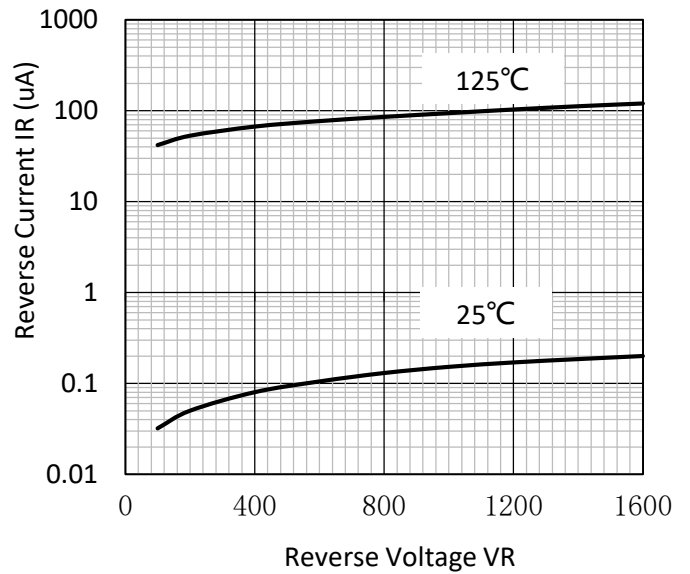
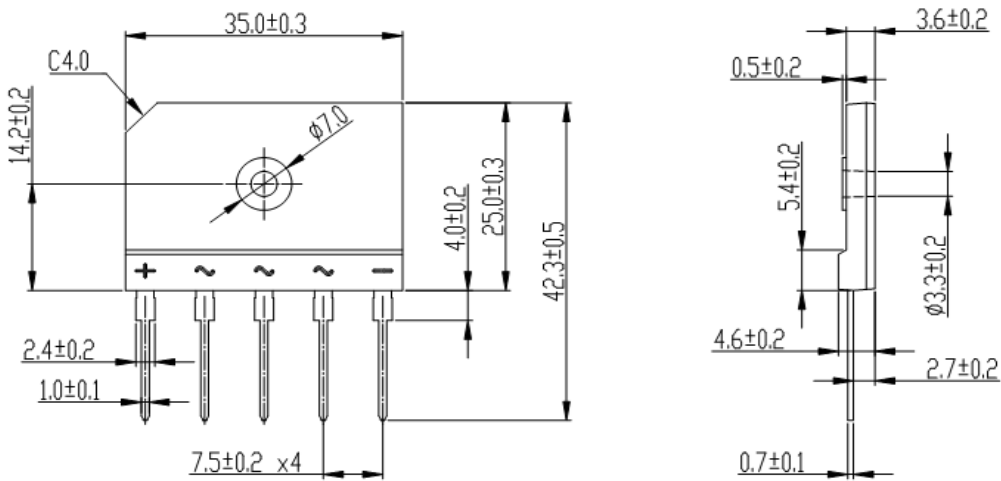


Fig.4 – Typical Reverse Characteristics

Package Outline Dimensions

Unit: mm



Revision History

Document Version	Date of release	Description of changes
Rev.A	2021.06.15	Released Datasheet
Rev.B	2023.10.05	Modify document format

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