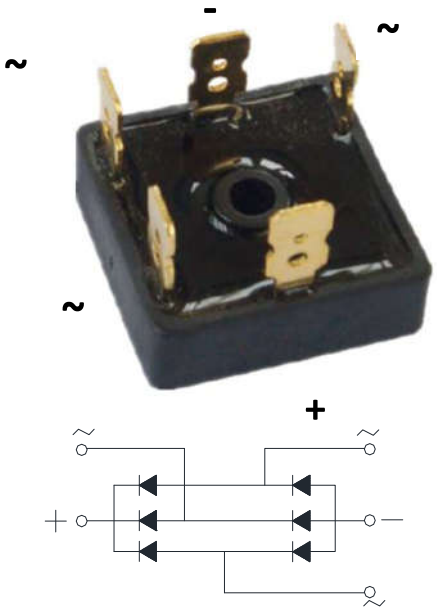
SGBPC5004 THRU SGBPC5016

Three Phase Bridge Rectifiers



Features

- Glass passivated chip
- High surge current capability
- Low thermal resistance
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

General purpose use in AC/DC bridge full wave rectification for power supply, home appliances, office equipment, industrial automation applications.

Mechanical Data

- **Package**: SGBPC
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102

■ Maximum Ratings (T_a=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SGBPC5004	SGBPC5006	SGBPC5008	SGBPC5010	SGBPC5012	SGBPC5014	SGBPC5016
Device marking code			SGBPC5004	SGBPC5006	SGBPC5008	SGBPC5010	SGBPC5012	SGBPC5014	SGBPC5016
Repetitive Peak Reverse Voltage	V_{RRM}	V	400	600	800	1000	1200	1400	1600
Average Rectified Output Current @60Hz sine wave, R-load, With heatsink, Tc=55℃	I_O	A	50						
Surge(Non-repetitive)Forward Current @60Hz Half- sine Wave, 1 cycle, T_a=25℃	I_{FSM}	A	500						
Current Squared Time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode	I^2t	A^2S	1040						
Storage Temperature	Tstg	℃	-55~+150						
Junction Temperature	Tj	℃	-55~+150						
Dielectric Strength, Terminals to case, AC 1 minute	Vdis	KV	2.5						
Mounting Torque	TOR	kg·cm	10						

■ Electrical Characteristics (T_a=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SGBPC5004	SGBPC5006	SGBPC5008	SGBPC5010	SGBPC5012	SGBPC5014	SGBPC5016
Maximum instantaneous forward voltage drop per diode	V_{FM}	V	I_{FM}=25A	1.2					
Maximum DC reverse current at rated DC blocking voltage per diode	I_{RRM}	μA	V_{RM}=V_{RRM}	10					

■ Thermal Characteristics (T_a=25℃ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	SGBPC5004	SGBPC5006	SGBPC5008	SGBPC5010	SGBPC5012	SGBPC5014	SGBPC5016
Thermal Resistance	Between junction and case, With heatsink	$R_{\theta J-C}$	℃/W	0.88						

■ Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SGBPC5004~SGBPC5016	A1	Approximate 17.5	50	50	500	Paper Box

■ Characteristics (Typical)

FIG1:Io-Tc Curve

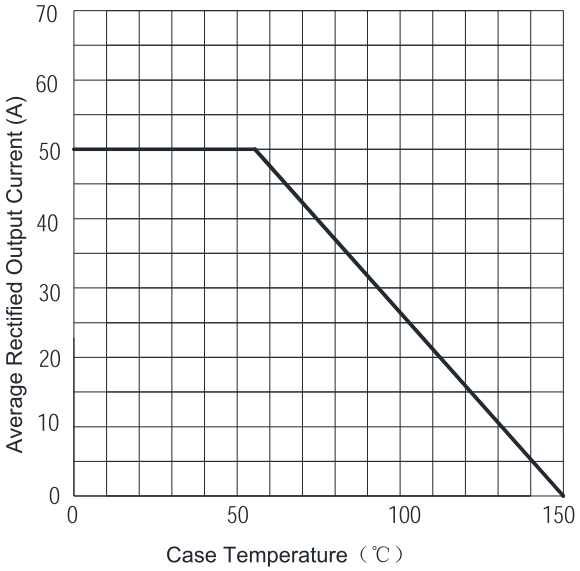


FIG2:Surge Forward Current Capability

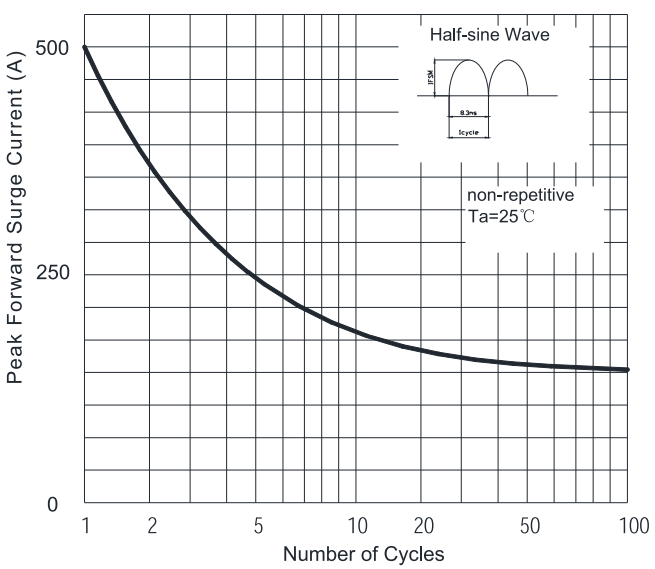


FIG3:Instantaneous Forward Voltage

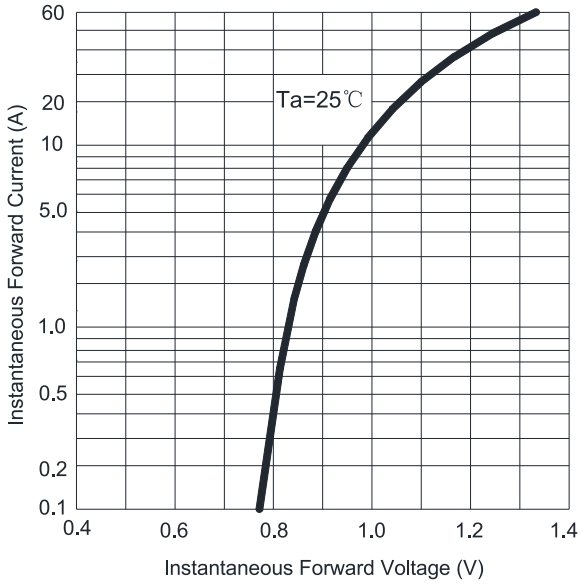
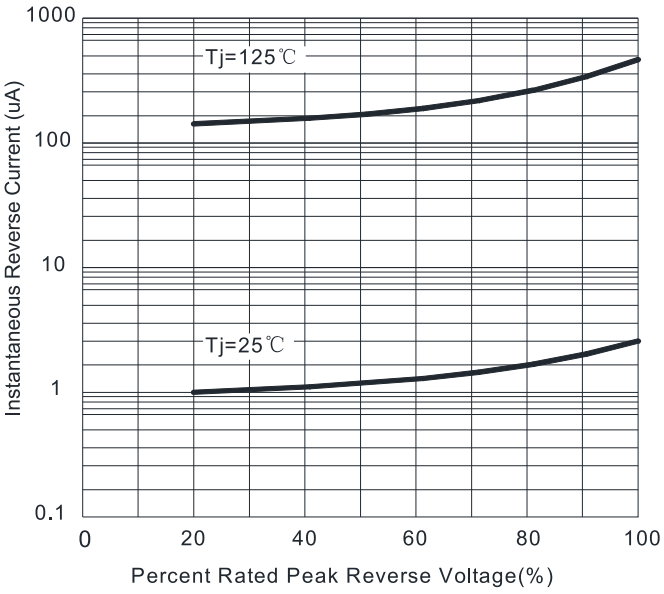
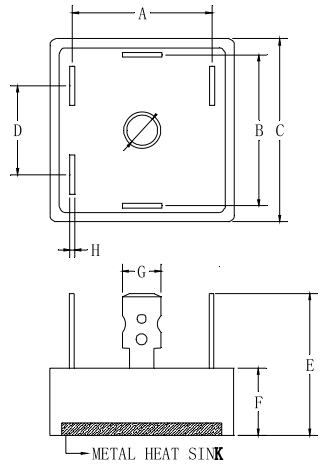


FIG4:Typical Reverse Characteristics



■ Outline Dimensions

SGBPC



Dimensions in millimeters

SGBPC		
Dim	Min	Max
A	23.3	24.3
B	23.3	24.3
C	28.2	28.8
D	15.5	16.5
E	/	25
F	9	10
G	6.2	6.4
H	0.75	0.85

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