



SKBPC/SBR25A/35A SERIES

SILICON /GLASS PASSIVATED THREE PHASE BRIDGE RECTIFIERS

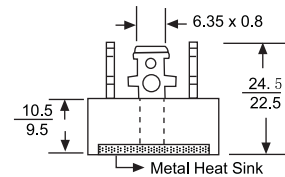
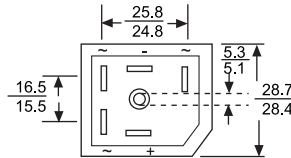
Voltage Range
50 to 1600 Volts
Current
25/35 Amperes

FEATURES

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards

MECHANICAL DATA

- Case: Epoxy Case with Heat Sink Internally Mounted in the Bridge Encapsulation
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 20 grams (approx.)
- Mounting Position:
Bolt Down on Heatsink With Silicone Thermal Compound Between Bridge and Mounting Surface for Maximum Heat Transfer Efficiency
- Mounting Torque: 20 in lbs. Max.
- Marking: Type Number



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
Sine wave, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

VOLTAGE RATINGS

Type Number		-00	-01	-02	-04	-06	-08	+10	-12	-14	-16	UNITS
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	50	100	200	400	600	800	1000	1200	1400	1600	V
Peak Non-Repetitive Reverse Voltage	V _{RSM}	75	150	275	500	725	900	1100	1300	1500	1700	V
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	840	980	1120	V

FORWARD CONDUCTION

Type Number		SKBPC/SBR25	SKBPC/SBR35	UNITS
Maximum Average Forward Rectified Current @ T _c = 100°C	I _{F(AV)}	25	35	A
Non-Repetitive Peak Forward Surge Current (No Voltage Reapplid t=8.3ms at 60Hz) (No Voltage Reapplid t=10ms at 50Hz) (100% V _{RRM} Reapplid t=8.3ms at 60Hz) (100% V _{RRM} Reapplid t=10ms at 50Hz)	I _{FSM}	375 360 314 300	500 475 420 400	A
I ² t Rating for fusing (No Voltage Reapplid t=8.3ms at 60Hz) (No Voltage Reapplid t=10ms at 50Hz) (100% V _{RRM} Reapplid t=8.3ms at 60Hz) (100% V _{RRM} Reapplid t=10ms at 50Hz)	I ² t	580 635 410 450	1030 1130 730 800	A ² S
Forward Voltage (per element) @ T _J = 25°C, @ I _{FM} = 40A per single junction	V _F	1.26	1.19	V
Peak Reverse Current (per leg) @ T _J = 25°C At Rated DC Blocking Voltage @ T _J = 125°C	I _R		10 5.0	µA mA
RMS Isolation Voltage from Case to Lead	V _{ISO}		2500	V

THERMAL CHARACTERISTICS

Operating Temperature Range	T _J	-40 to +125	°C
Storage Temperature Range	T _{STG}	-40 to +150	°C
Thermal Resistance Junction to Case at DC Operation per Bridge	R _{θJC}	1.42	K/W
Thermal Resistance Case to Heatsink Mounting Surface, Smooth, Flat and Greased	R _{θCS}	0.2	K/W

RATING AND CHARACTERISTIC CURVES SKBPC/SBR 25A SERIES



FIG.1 - Current Rating Characteristics

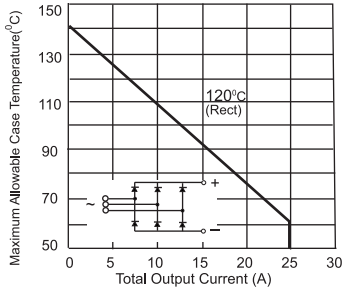


FIG.2 - Forward Voltage Drop Characteristics

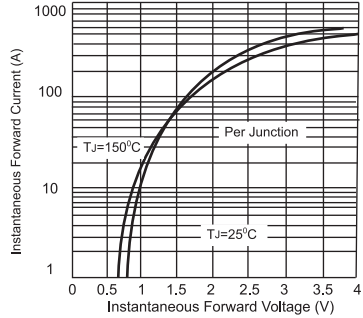


FIG.3 - Total Power Loss Characteristics

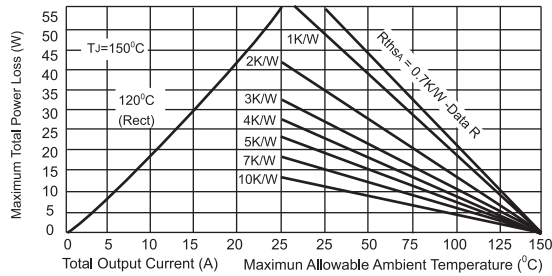


FIG.4 - Maximum Non-Repetitive Surge Current

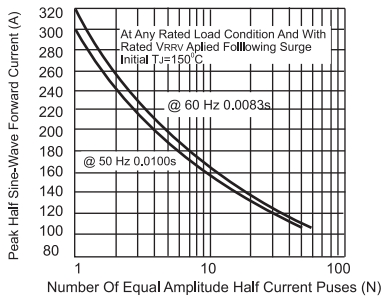
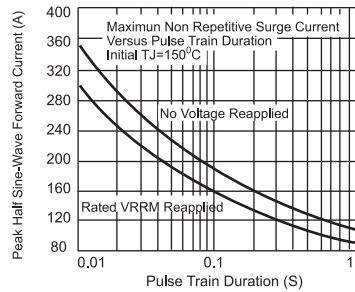


FIG.5 - Maximum Non-Repetitive Surge Current



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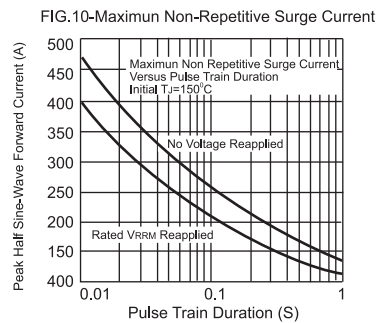
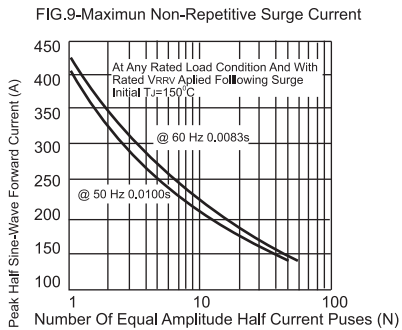
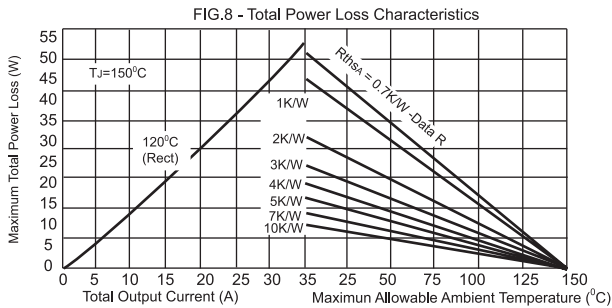
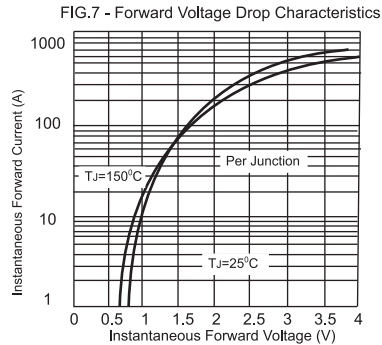
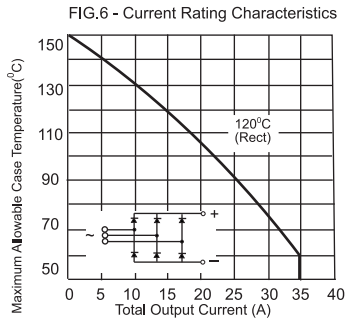




FIG.11 - Thermal Impedance Z_{thJC} Characteristics

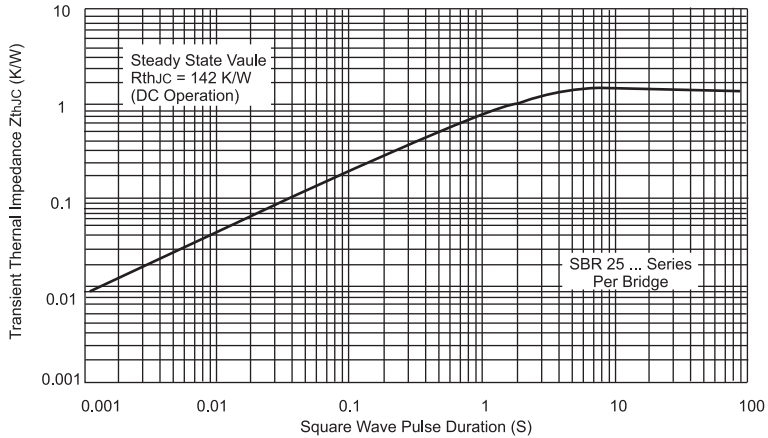


FIG.12 - Thermal Impedance Z_{thJC} Characteristics

