

SBR 25A/35A SERIES

SILICON / GLASS
PASSIVATED THREE PHASE
BRIDGE RECTIFIERS



CHENG-YI
ELECTRONIC

FEATURES

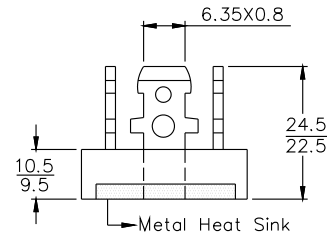
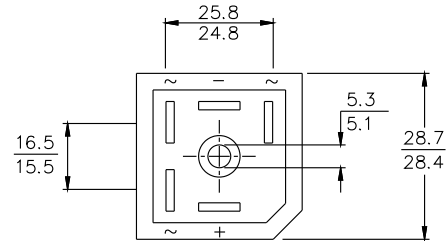
- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards



MECHANICAL DATA

- Cass: Epoxy Cass With Heat Sink Internally Mounted in 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

REVERSE VOLTAGE -50 to 1600 Volts
FORWARD CURRENT -25/35 Amperes



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

VOLTAGE RATINGS												
Characteristics	Symbol	-00	-01	-02	-04	-06	-08	-10	-12	-14	-16	UNIT
Peak Repetitive Reverse Voltage	V_{RRM}											
Working Peak Reverse Voltage	V_{RWM}	50	100	200	400	600	800	1000	1200	1400	1600	V
DC Blocking Voltage	V_R											
Peak Non-Repetitive Reverse Voltage	V_{RSM}	75	150	275	500	725	900	1100	1300	1500	1700	V
RMS Reverse Voltage	$V_{(RMS)}$	35	70	140	280	420	560	700	840	980	1120	V

FORWARD CONDUCTION								
Characteristics	Symbol	MT25			MT35			UNIT
Maximum Average Forward Rectified Current @ $T_c=100^\circ\text{C}$	I_O	25			35			A
Non-Repetitive Peak Forward Surge Current (No Voltage Reapplied $t = 8.3\text{ms}$ at 60Hz) (No Voltage Reapplied $t = 10\text{ms}$ at 50Hz) (100% V_{RRM} Reapplied $t = 8.3\text{ms}$ at 60Hz) (100% V_{RRM} Reapplied $t = 10\text{ms}$ at 50Hz)	I_{FSM}	375 360 314 300			500 475 420 400			A
$I^2 t$ Rating for Fusing (No Voltage Reapplied $t = 8.3\text{ms}$ at 60Hz) (No Voltage Reapplied $t = 10\text{ms}$ at 50Hz) (100% V_{RRM} Reapplied $t = 8.3\text{ms}$ at 60Hz) (100% V_{RRM} Reapplied $t = 10\text{ms}$ at 50Hz)	$I^2 t$	580 635 410 450			1030 1130 730 800			A ² S
Forward Voltage (per element) @ $T_J = 25^\circ\text{C}$, @ $I_{FM} = 40\text{APk}$ Per single junction	V_F	1.26			1.19			V
Peak Reverse Current (per leg) At Rated DC Blocking Voltage	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 +150		$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-40 to +150		$^\circ\text{C}$
Temperature Resistance Junction to Case at DC Operation per Bridge	$R\theta_{JC}$	1.42		K/W
Temperature Resistance Case to Heatsink Mounting Surface, Smooth, Flat and Greased	$R\theta_{CS}$	0.2		K/W

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RATING AND CHARACTERISTICS CURVES SBR 25A/35A SERIES

FIG. 1- Current Rating Characteristics

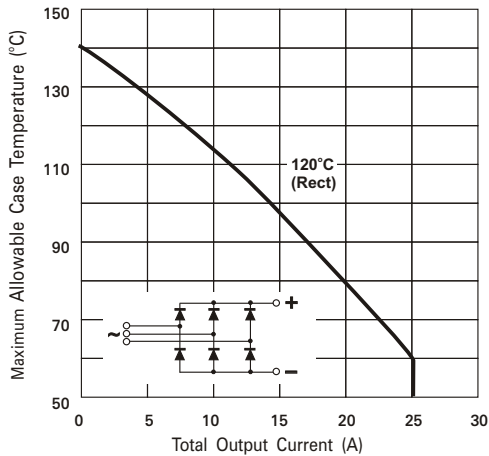


FIG. 2- Forward Voltage Drop Characteristics

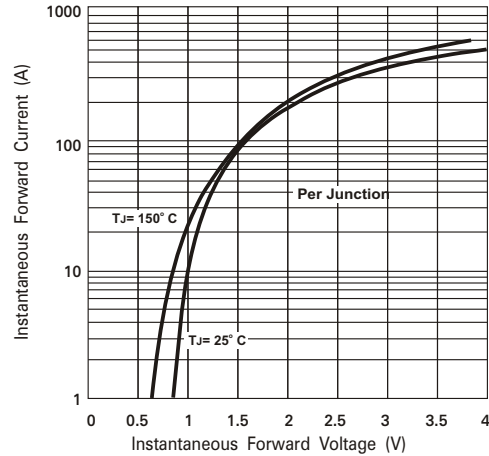


FIG. 3- Total Power Loss Characteristics

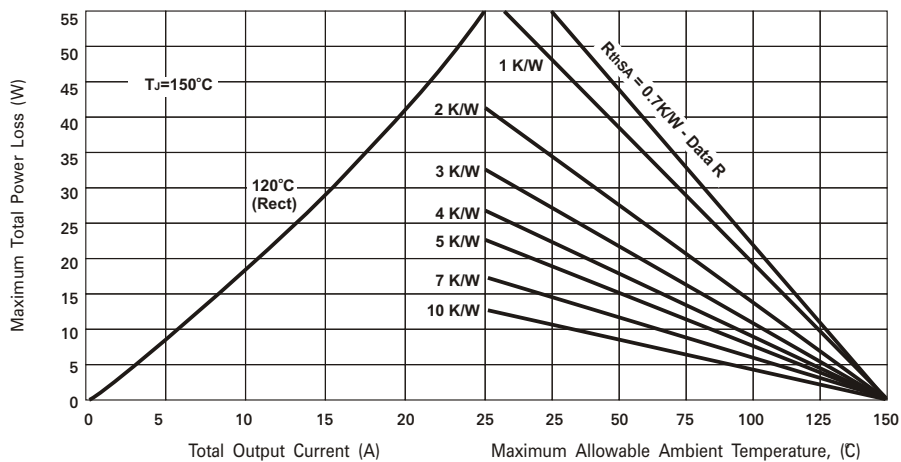


FIG. 4- Maximum Non-Repetitive Surge Current

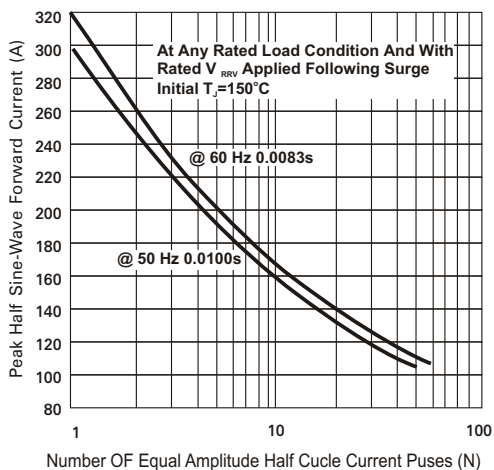


FIG. 5- Maximum Non-Repetitive Surge Current

