SBR25/35A SERIES

SILICON PASSIVATED THREE PHASE BRIDGE RECTIFIERS

REVERSE VOLTAGE - **50** to **1600** Volts

FORWARD CURRENT - **15/25/35** Ampreres

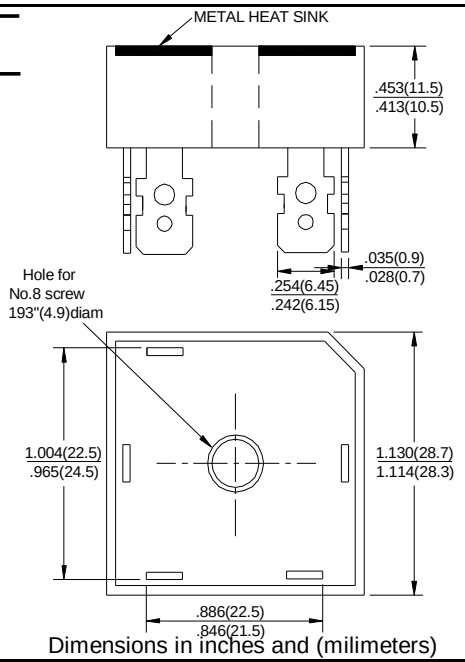
FEATURES

- ●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 Interally Mounted in the Bridge Encapsulation
- ●Terminals:Plated Leads Soiderable 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

SBR



Dimensions in inches and (milimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ 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 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

CHARACTERISTICS	SYMBOL	SBR25	SBR35	UNIT
Maximum Average Forward Rectified Current @TC=100℃	I_O	25	35	A
Non-Repetitive Peak Forward Surge Current (No Voltage Reapplied t=8.3ms at 60HZ) (No Voltage Reapplied t=10ms at 50HZ) (100% VRRM Reapplied t=8.3ms at 60HZ) (100% VRRM Reapplied t=10ms at 50HZ)	I_{FSM}	 375 360 314 300	 500 475 420 400	A
I2t Rating for fusing (No Voltage Reapplied t=8.3ms at 60HZ) (No Voltage Reapplied t=10ms at 50HZ) (100% VRRM Reapplied t=8.3ms at 60HZ) (100% VRRM Reapplied t=10ms at 50HZ)	I^2t	 580 635 410 450	 1030 1130 730 800	A^2S
Forward Voltage (per element) @TJ=25℃,@IFM=40APK per single junction	V_F	1.26	1.19	V
Peak Reverse Current (per leg) @TJ=25℃ At Rated DC Blocking Voltage @TJ=125℃	I_R	10 5.0		uA mA
RMS Isolation Voltage from Case to Lead	V_{ISO}	2500		V

THERMAL CHARACTERISTICS

Operating Temperature Range	T_J	-55 to +150		℃
Storage Temperature Range	T_{STG}	-55 to +150		℃
Thermal Resistance Junction to Case at DC Operation per Bridge	$R_{\theta JC}$	1.42	1.16	K/W
Thermal Resistance Case to Heatsink Mounting Surface, Smooth, Flat and Greased	$R_{\theta CS}$	0.2		K/W

FIG.1-CURRENT RATING CHARACTERISTICS

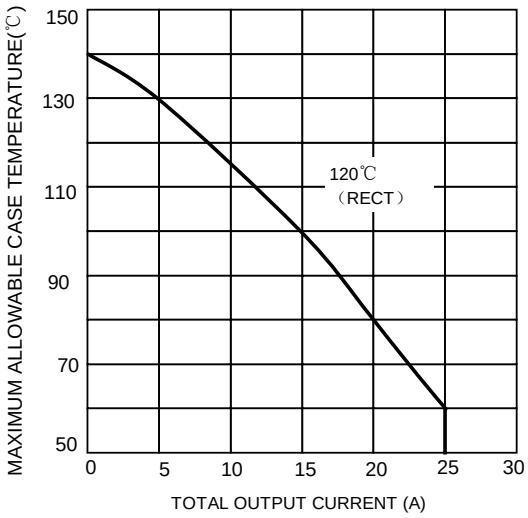


FIG.2-FORWARD VOLTAGE DROP CHARACTERISTICS

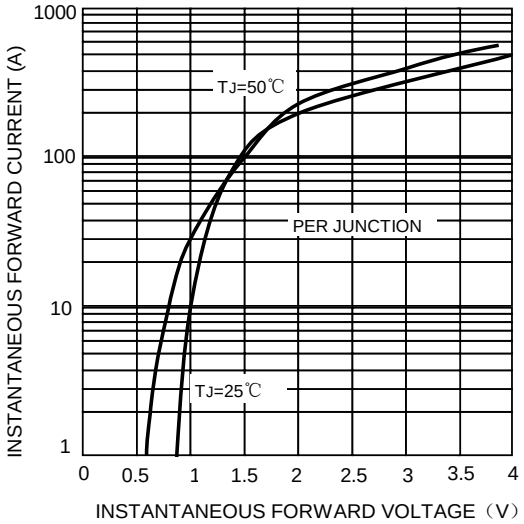


FIG.3-TOTAL POWPER LOSS CHARACTERISTICS

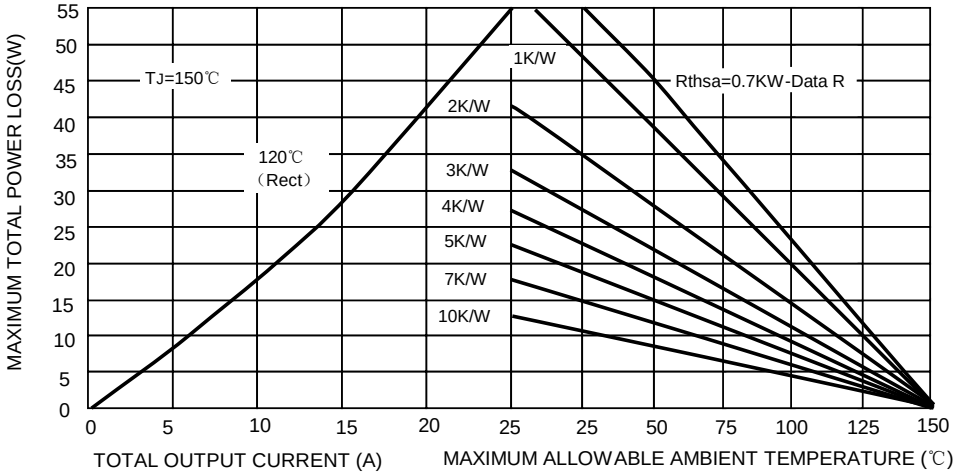


FIG.4-MAXIMUM NON-REPETITIVE SURGE CURRENT

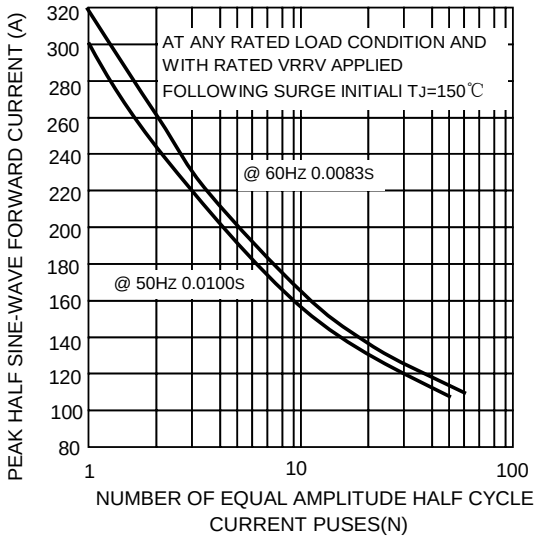


FIG.5-MAXIMUM NON-REPETITIVE SURGE CURRENT

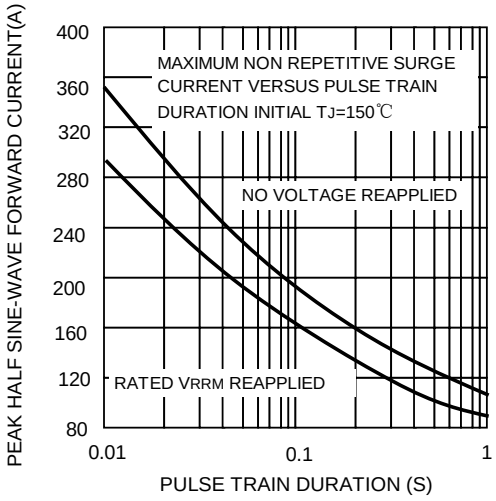


FIG.6-CURRENT RATING CHARACTERISTICS

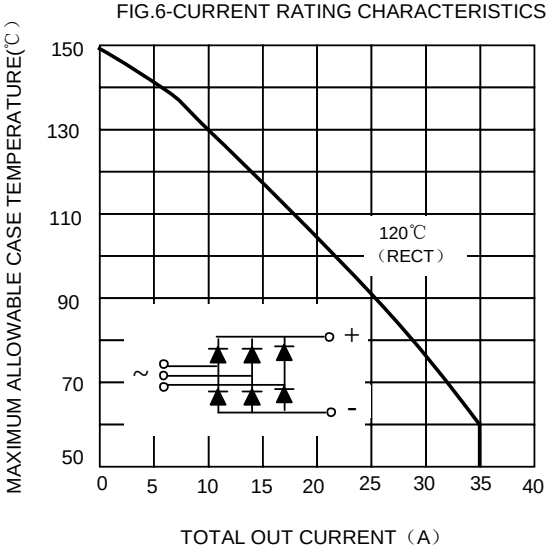


FIG.7-FORWARD VOLTAGE DROP CHARACTERISTICS

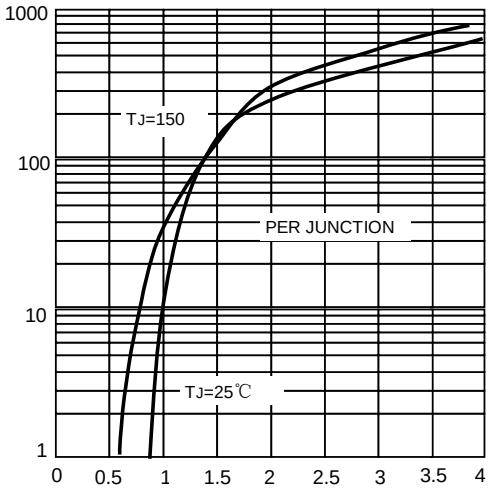


FIG.8-TOTAL POWER LOSS CHARACTERISTICS

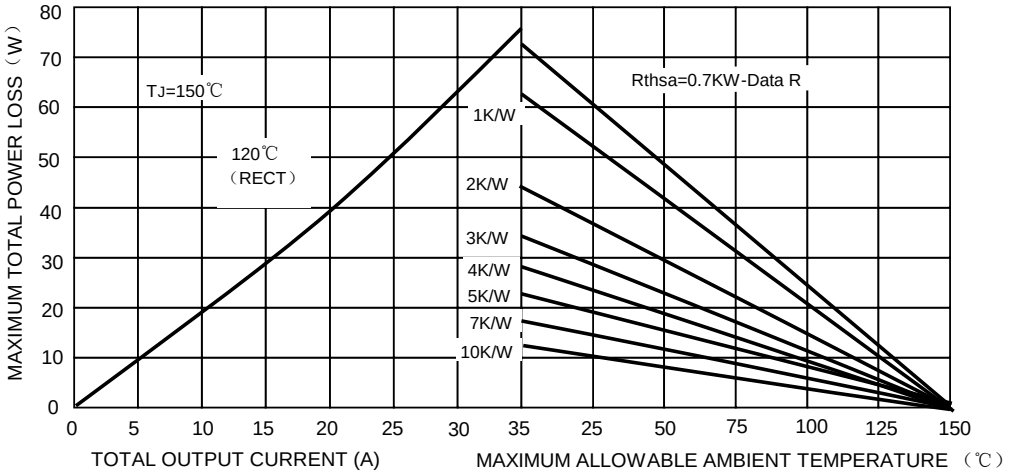


FIG.9-MAXIMUM NON-REPETITIVE SURGE CURRENT

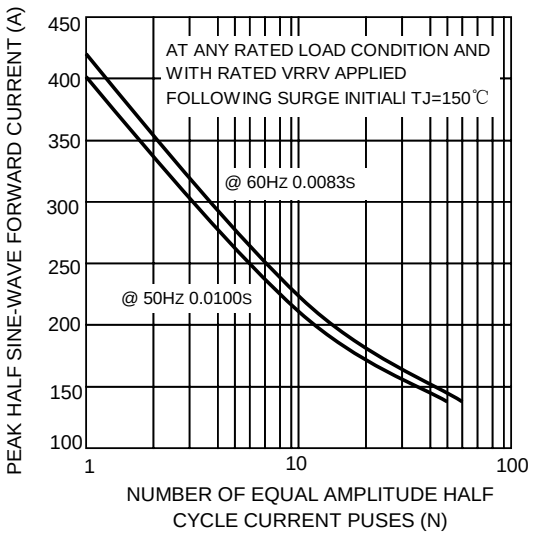


FIG.10-MAXIMUM NON-REPETITIVE SURGE CURRENT

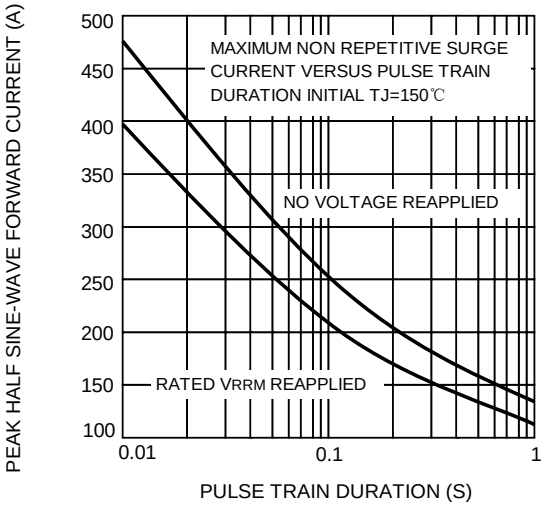


FIG.11-THERMAL IMPEDANCE Z_{THJC} CHARACTERISTICS

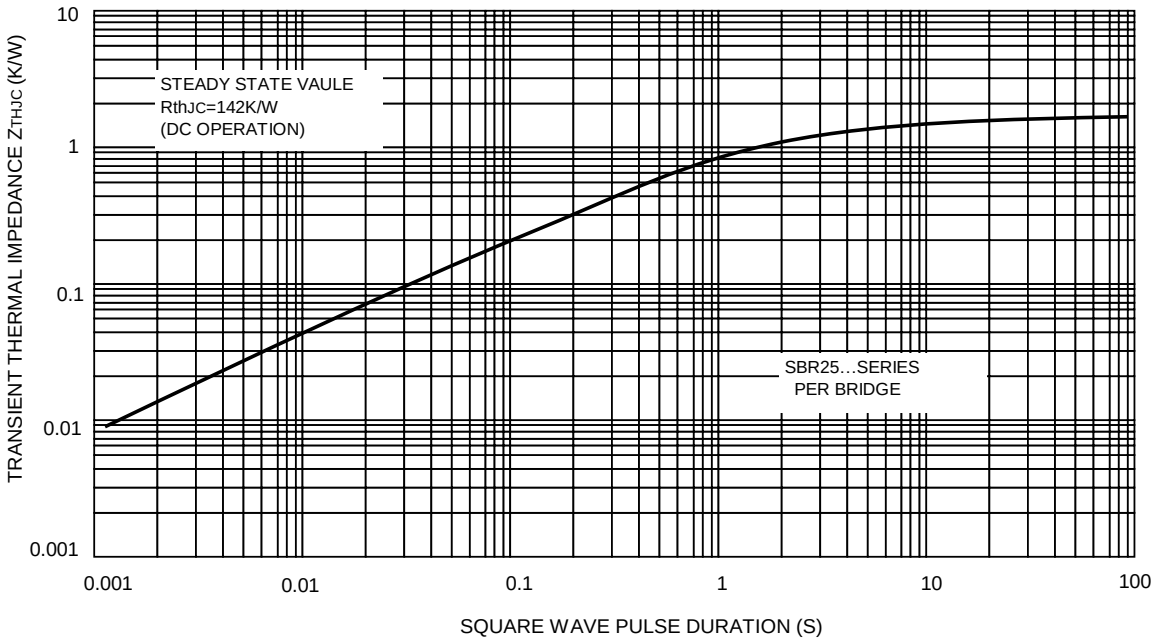


FIG.12-THERMAL IMPEDANCE Z_{THJC} CHARACTERISTICS