SKBPC/SBR25A/35A SERIES

SILICON /GLASS PASSIVATED THREE PHASE BRIDG RECTIFIERS

Voltage Range
50 to 1600 Volts
Current
25/35 Amperes

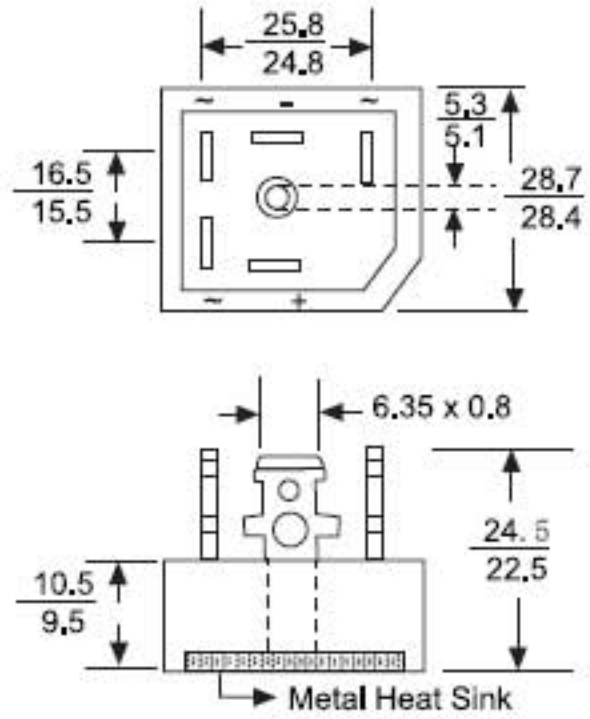
FEATURES

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

SKBPC



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified,
Sing phase,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 Reprtitive 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^2t 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^2t	580 635 410 450	1030 1130 730 800	A^2S
Forward Voltage (per element) @T_J = 25°C,@I_{FM}=40Apk per single junction	V_F	1,2	1,2	V
Peak Reverse Current (per leg) @T_J =25°C At Rated DC Blocking Voltage @T_J =125°C	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	-40 to + 125		°C
Storage Temperature Range	T_{STG}	-40 to + 150		°C
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

RATING AND CHARACTERISTIC CURVES
SKBPC/SBR 25A SERIES

FIG.1 - Current Rating Characteristics

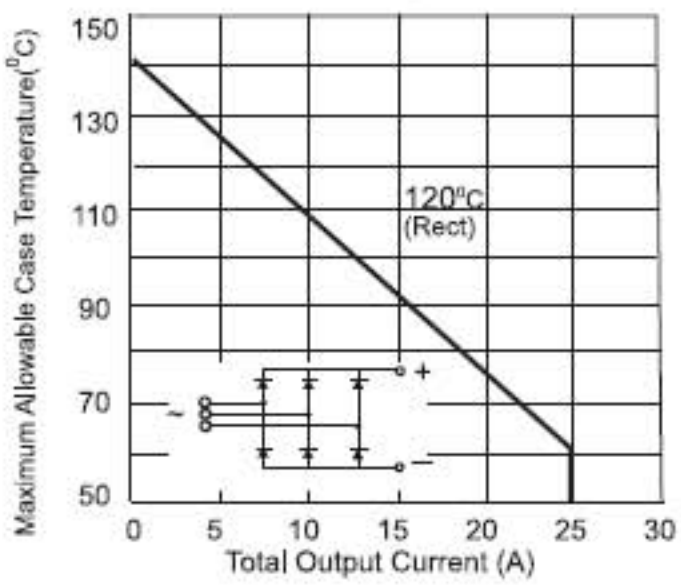


FIG.2 - Forward Voltage Drop Characteristics

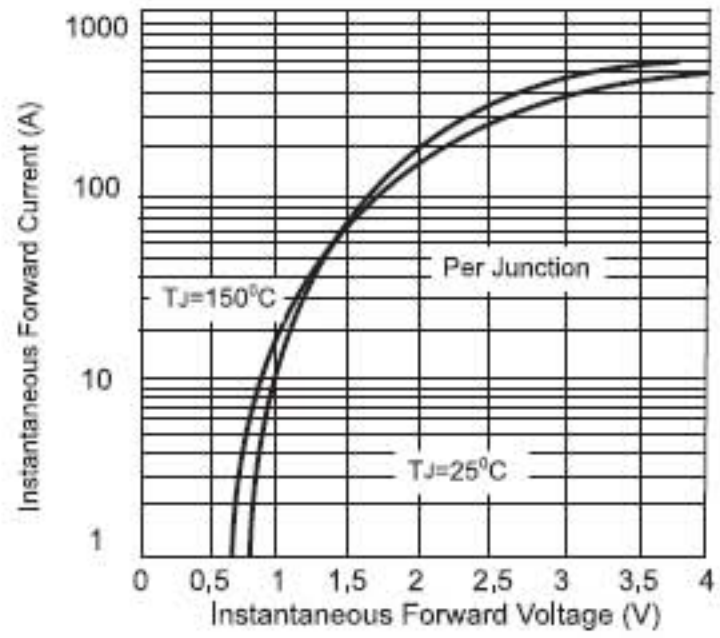


FIG.3 - Total Power Loss Characteristics

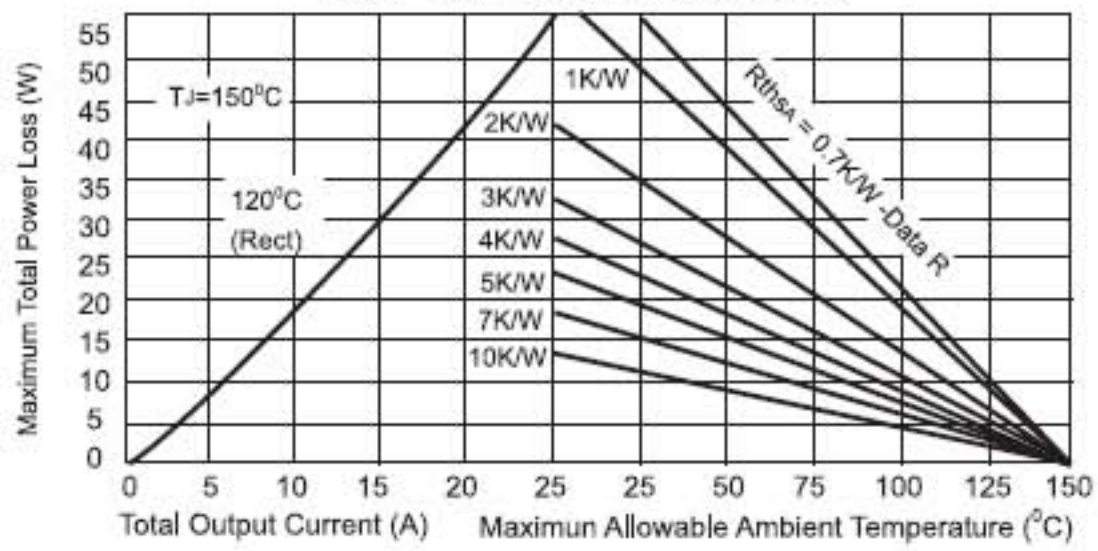


FIG.4-Maximun Non-Repetitive Surge Current

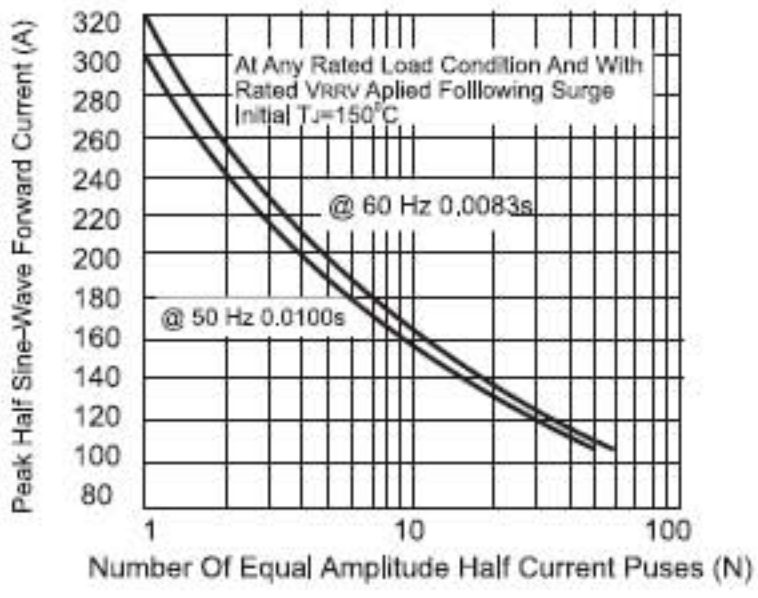
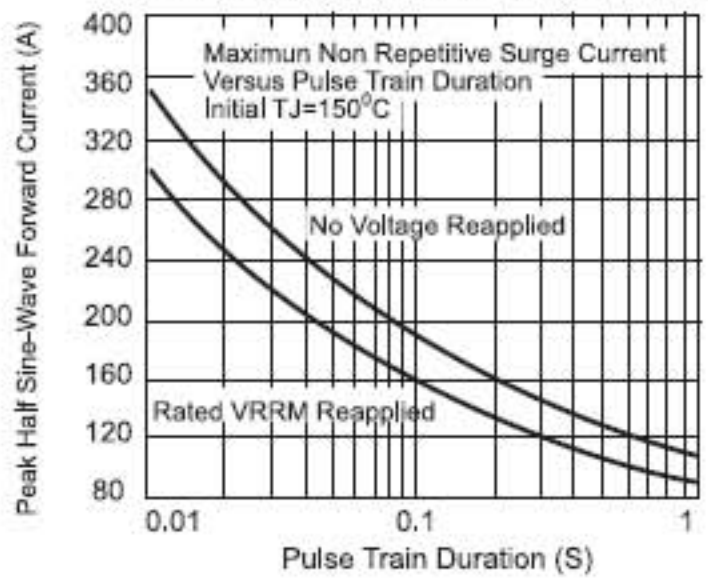


FIG.5-Maximun Non-Repetitive Surge Current



RATING AND CHARACTERISTIC CURVES
SKBPC/SBR 35A SERIES

FIG.6 - Current Rating Characteristics

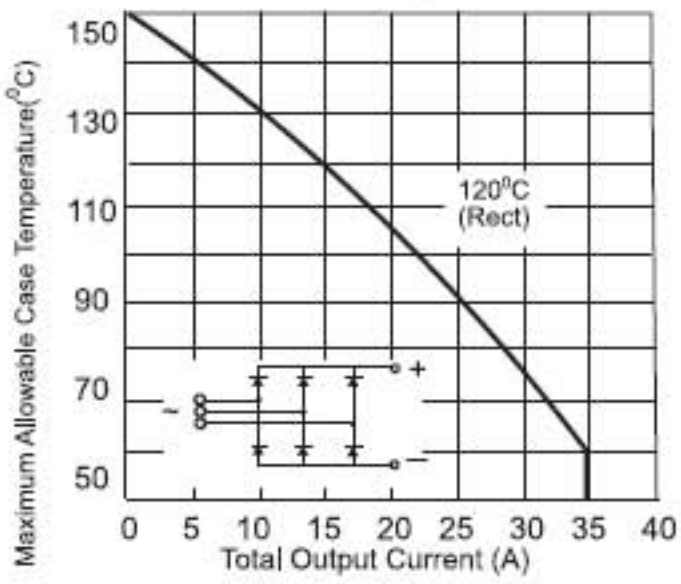


FIG.7 - Forward Voltage Drop Characteristics

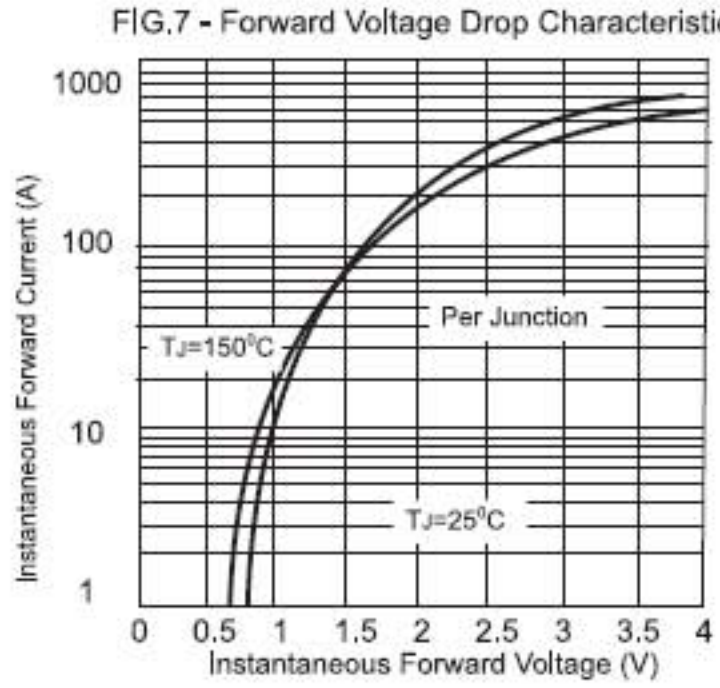


FIG.8 - Total Power Loss Characteristics

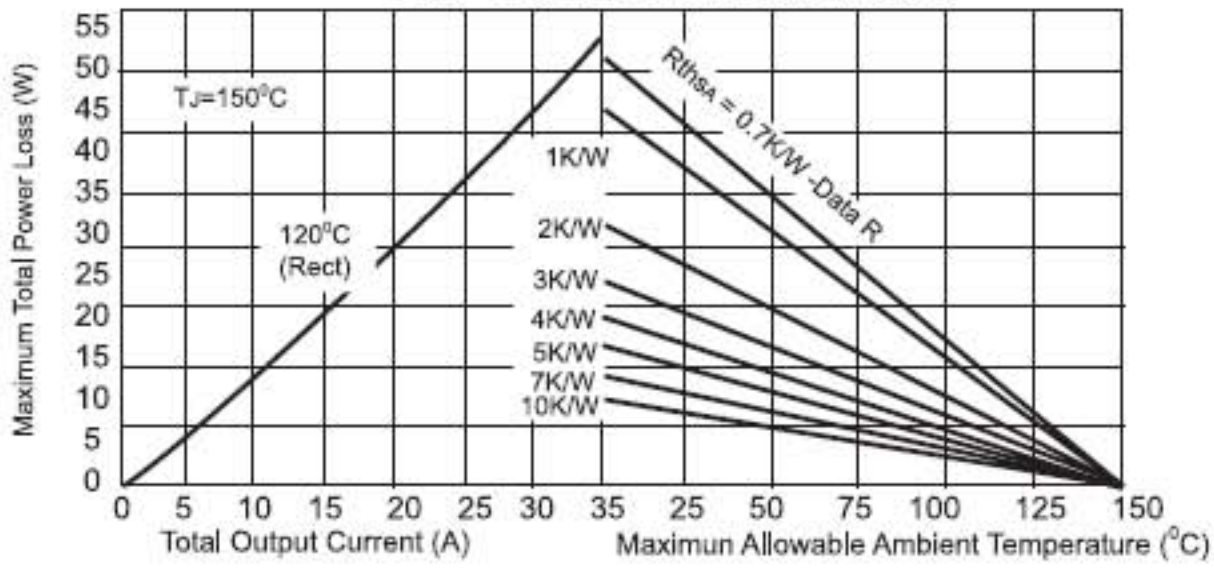


FIG.9-Maximun Non-Repetitive Surge Current

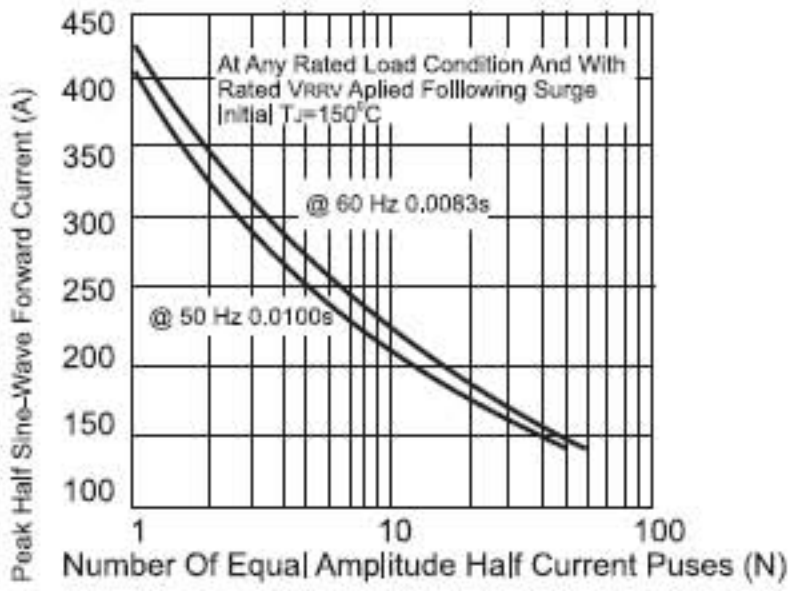
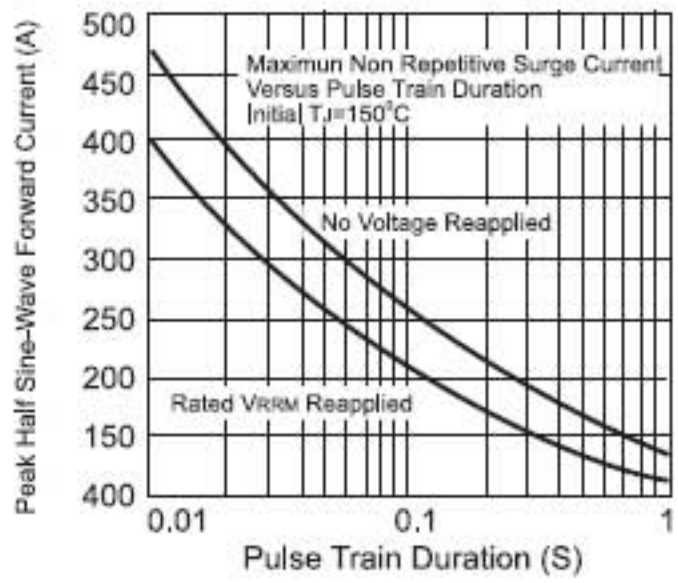


FIG.10-Maximun Non-Repetitive Surge Current



RATING AND CHARACTERISTIC CURVES
SKBPC/SBR 25A/35A SERIES

FIG.11 - Thermal Impedance ZthJC Characteristics

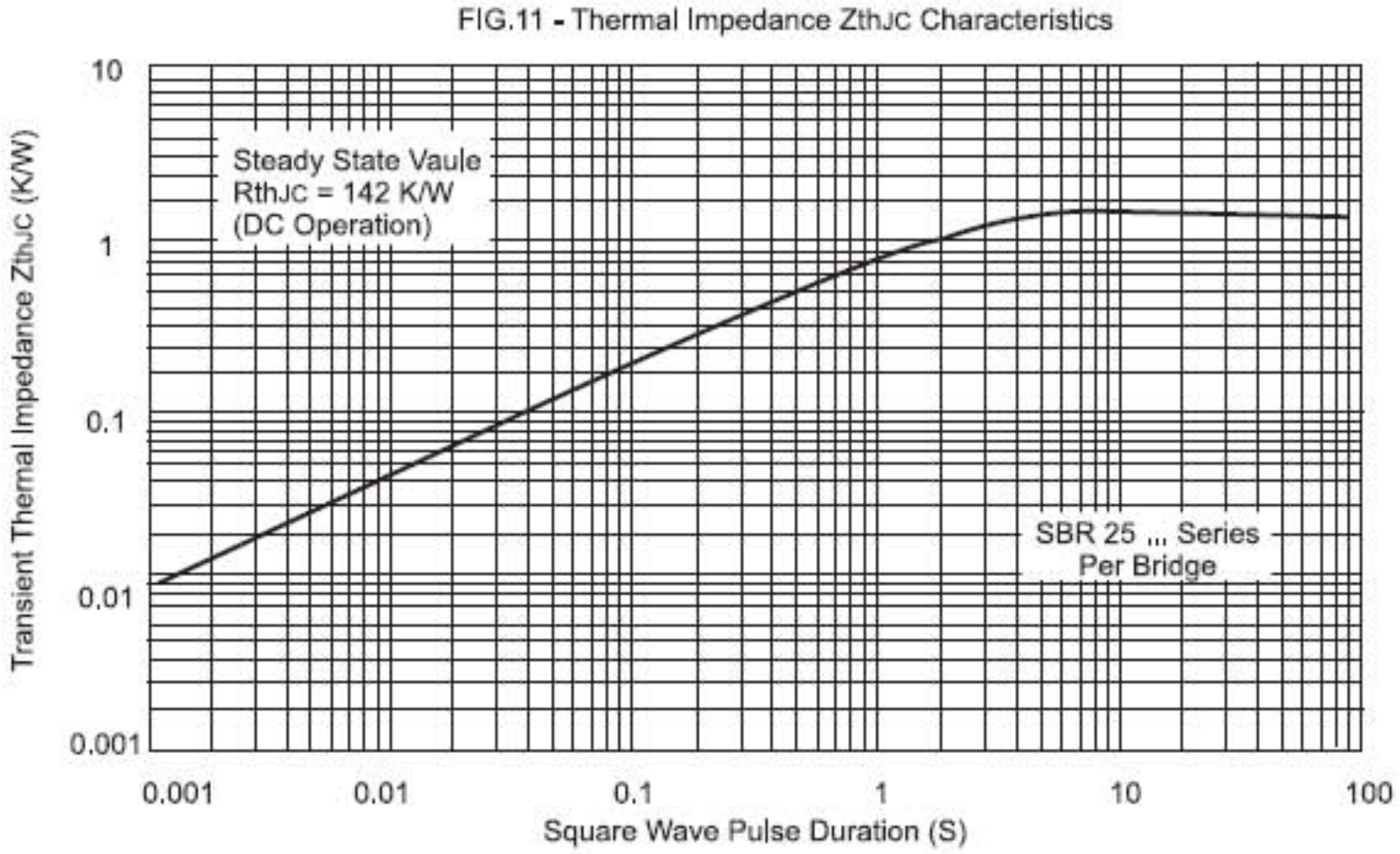


FIG.12 - Thermal Impedance ZthJC Characteristics