



SKBPC/SBR25A/35A SERIES

**SILICON /GLASS
PASSIVATED THREE PHASE
BRIDGE RECTIFIERS**

**Voltage Range
50 to 1600 Volts
Current
25/35 Amperes**

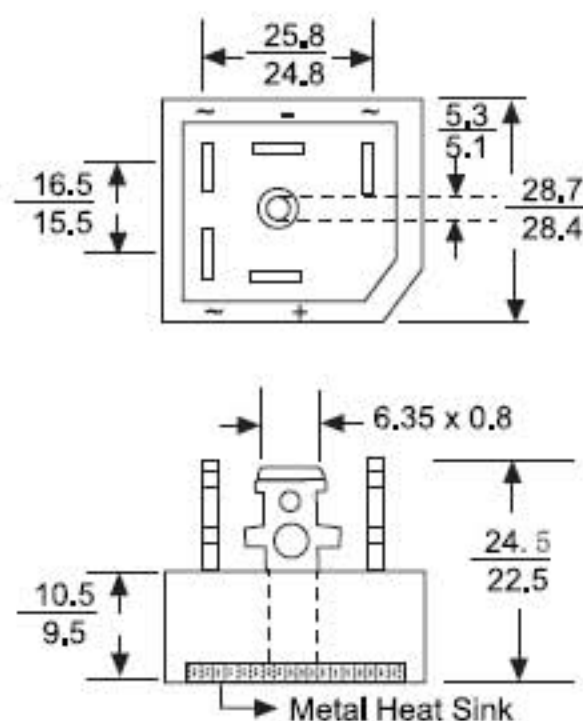
FEATURES

- 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

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 Repetitive Reverse Voltage	VRRM	50	100	200	400	600	800	1000	1200	1400	1600	V
Working Peak Reverse Voltage	VRWM											
DC Blocking Voltage	VR											
Peak Non-Repetitive Reverse Voltage	VRSM	75	150	275	500	725	900	1100	1300	1500	1700	V
RMS Reverse Voltage	VR(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 @ Tc = 100°C	IF(AV)	25		35		A
Non-Repetitive Peak Forward Surge Current (No Voltage Reapplid t=8,3ms at 60Hz)	IFSM	375		500		A
(No Voltage Reapplid t=10ms at 50Hz)		360		475		
(100% VRRM Reapplid t=8,3ms at 60Hz)		314		420		
(100% VRRM Reapplid t=10ms at 50Hz)		300		400		
I ² t Rating for fusing (No Voltage Reapplid t=8,3ms at 60Hz)	I ² t	580		1030		A ² S
(No Voltage Reapplid t=10ms at 50Hz)		635		1130		
(100% VRRM Reapplid t=8,3ms at 60Hz)		410		730		
(100% VRRM Reapplid t=10ms at 50Hz)		450		800		
Forward Voltage (per element) @ Tj = 25°C, @ IFM=40Apk per single junction	VF	1,2		1,2		V
Peak Reverse Current (per leg) @ Tj = 25°C At Rated DC Blocking Voltage @ Tj = 125°C	IR			10 5,0		uA mA
RMS Isolation Voltage from Case to Lead	VISO			2500		V

THERMAL CHARACTERISTICS

Operating Temperature Range	Tj	-40 to + 125		°C
Storage Temperature Range	TSTG	-40 to + 150		°C
Thermal Resistance Junction to Case at DC Operation per Bridge	RθJC	1,42		K/W
Thermal Resistance Case to Heatsink Mounting Surface, Smooth, Flat and Greased	RθCS	0,2		K/W

RATING AND CHARACTERISTIC CURVES SKBPC/SBR 25A SERIES



FIG.1 - Current Rating Characteristics

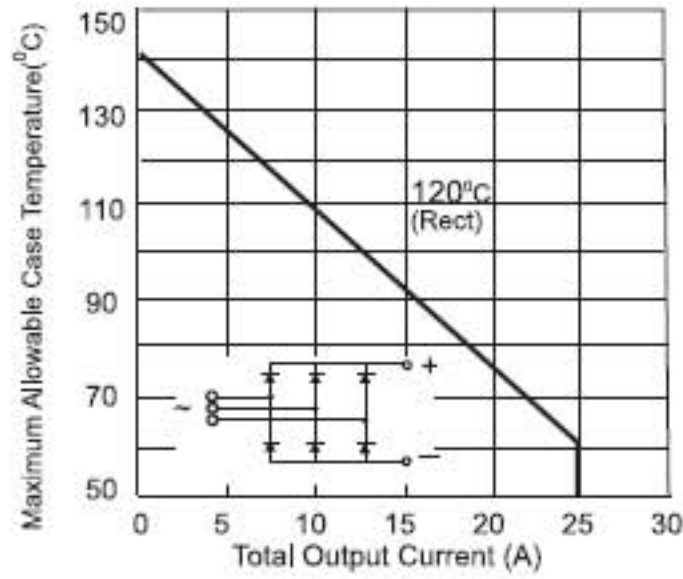


FIG.2 - Forward Voltage Drop Characteristics

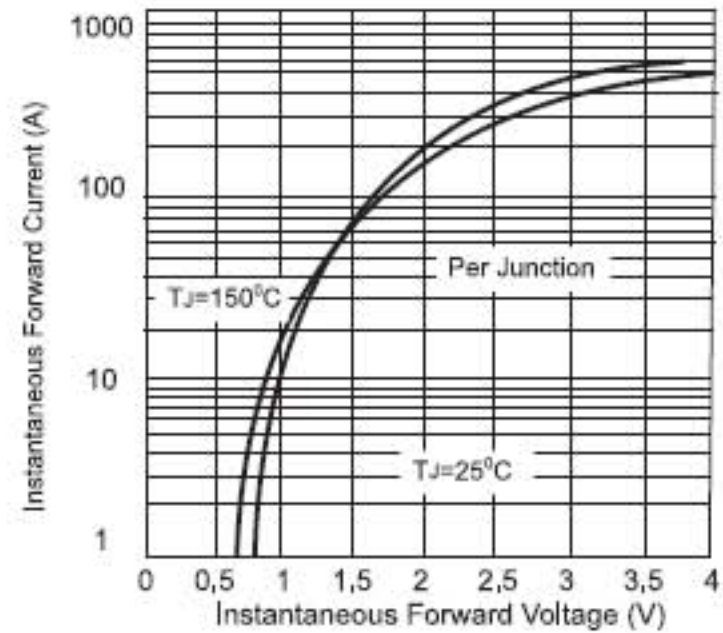


FIG.3 - Total Power Loss Characteristics

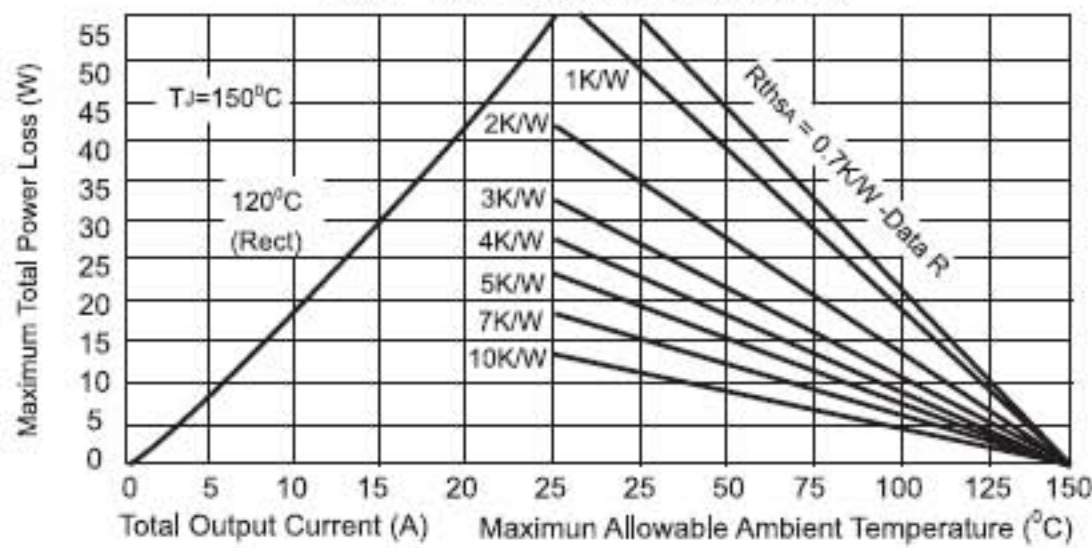


FIG.4 - Maximum Non-Repetitive Surge Current

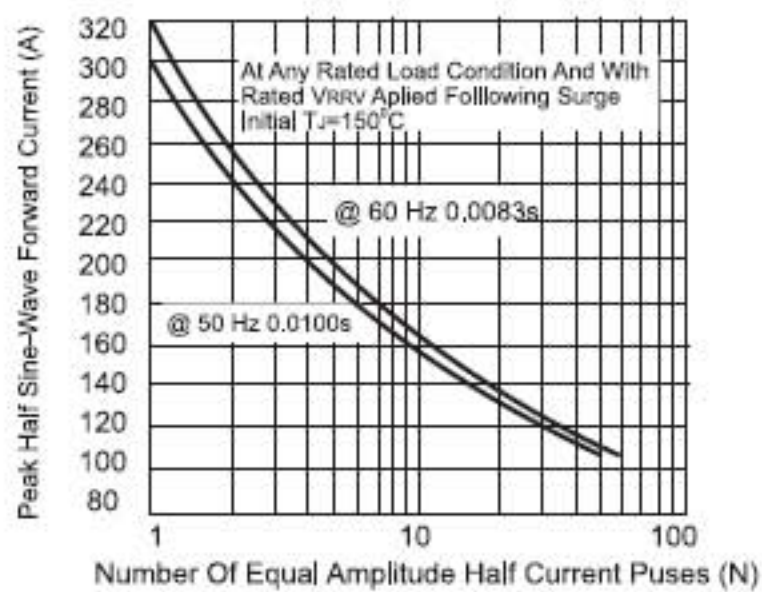
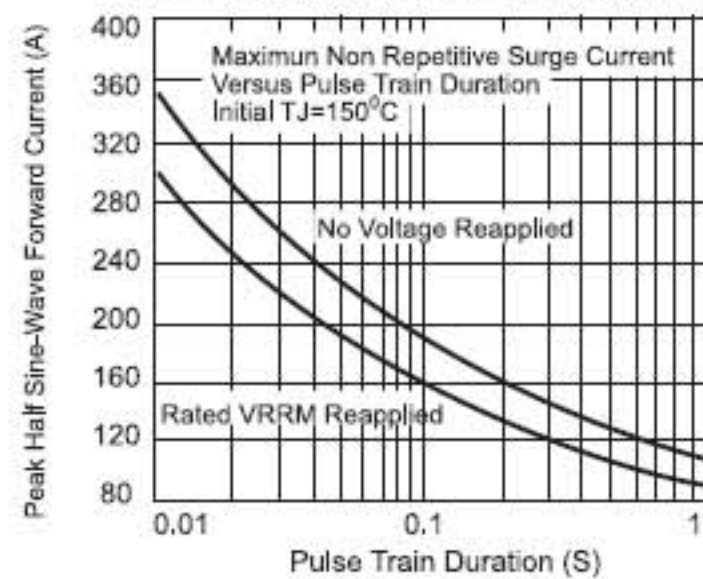


FIG.5 - Maximum Non-Repetitive Surge Current



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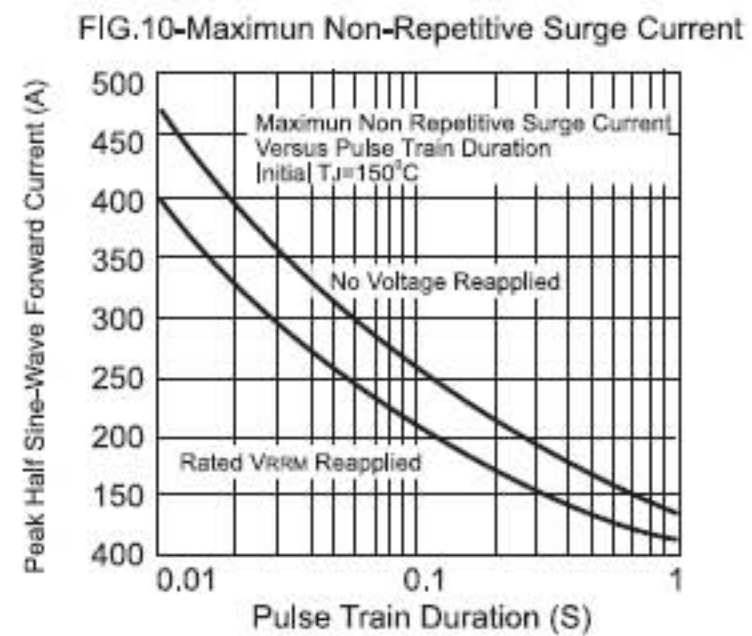
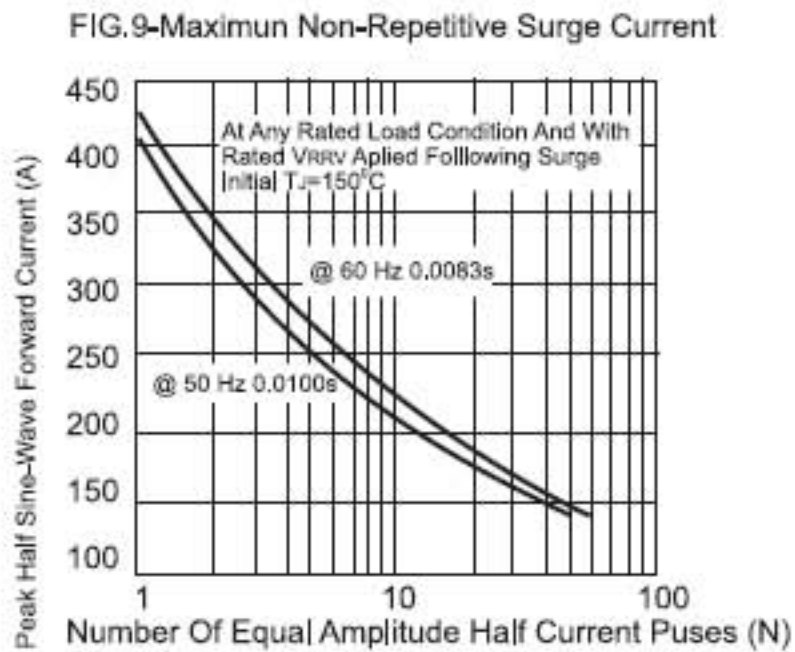
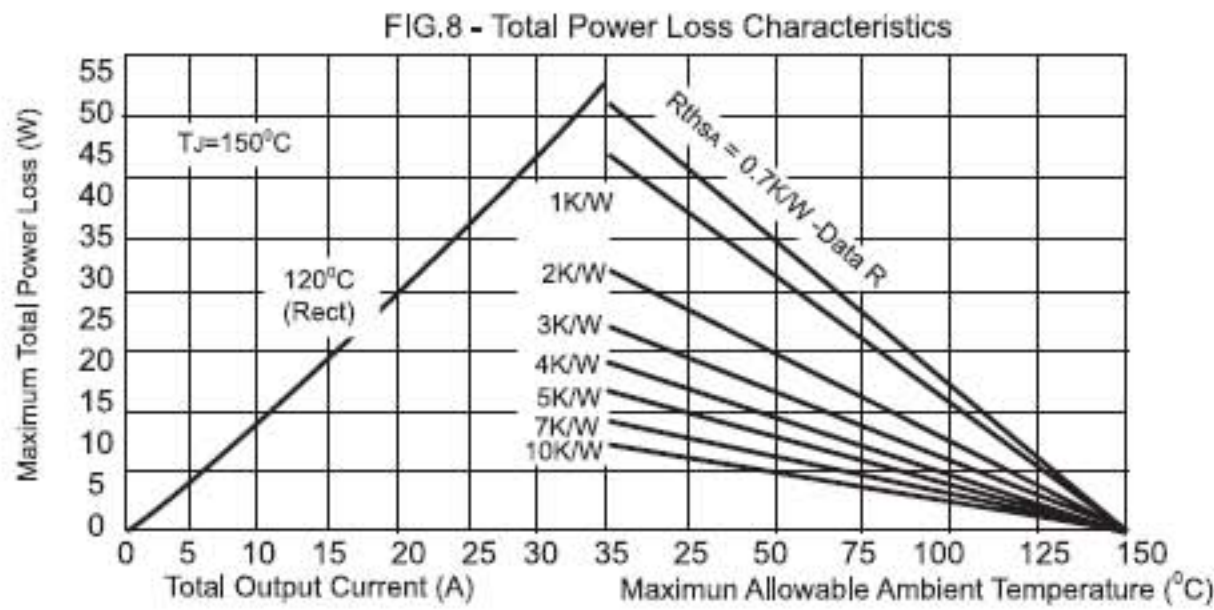
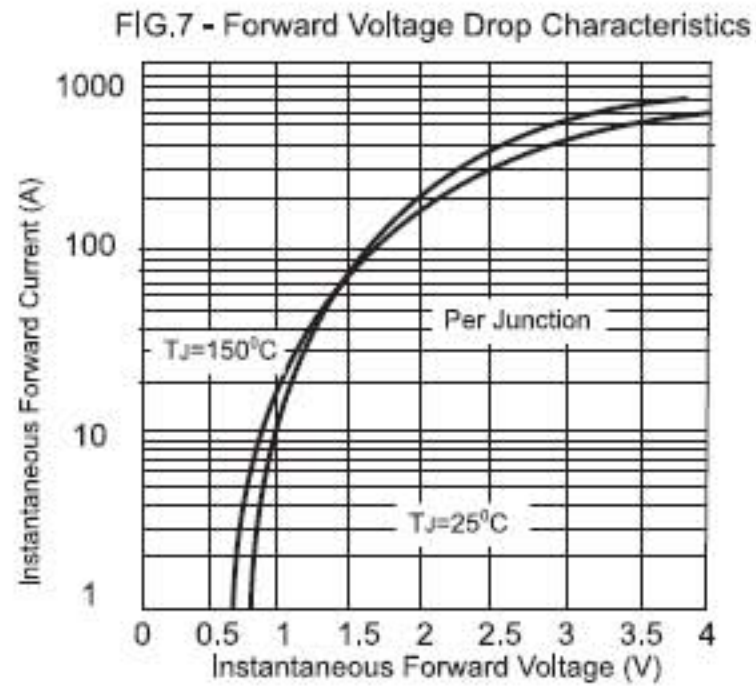
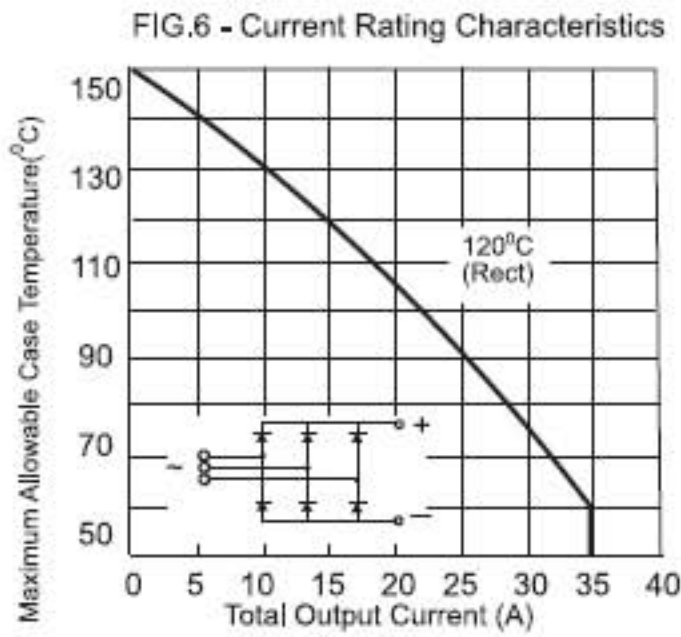




FIG.11 - Thermal Impedance Z_{thJC} Characteristics

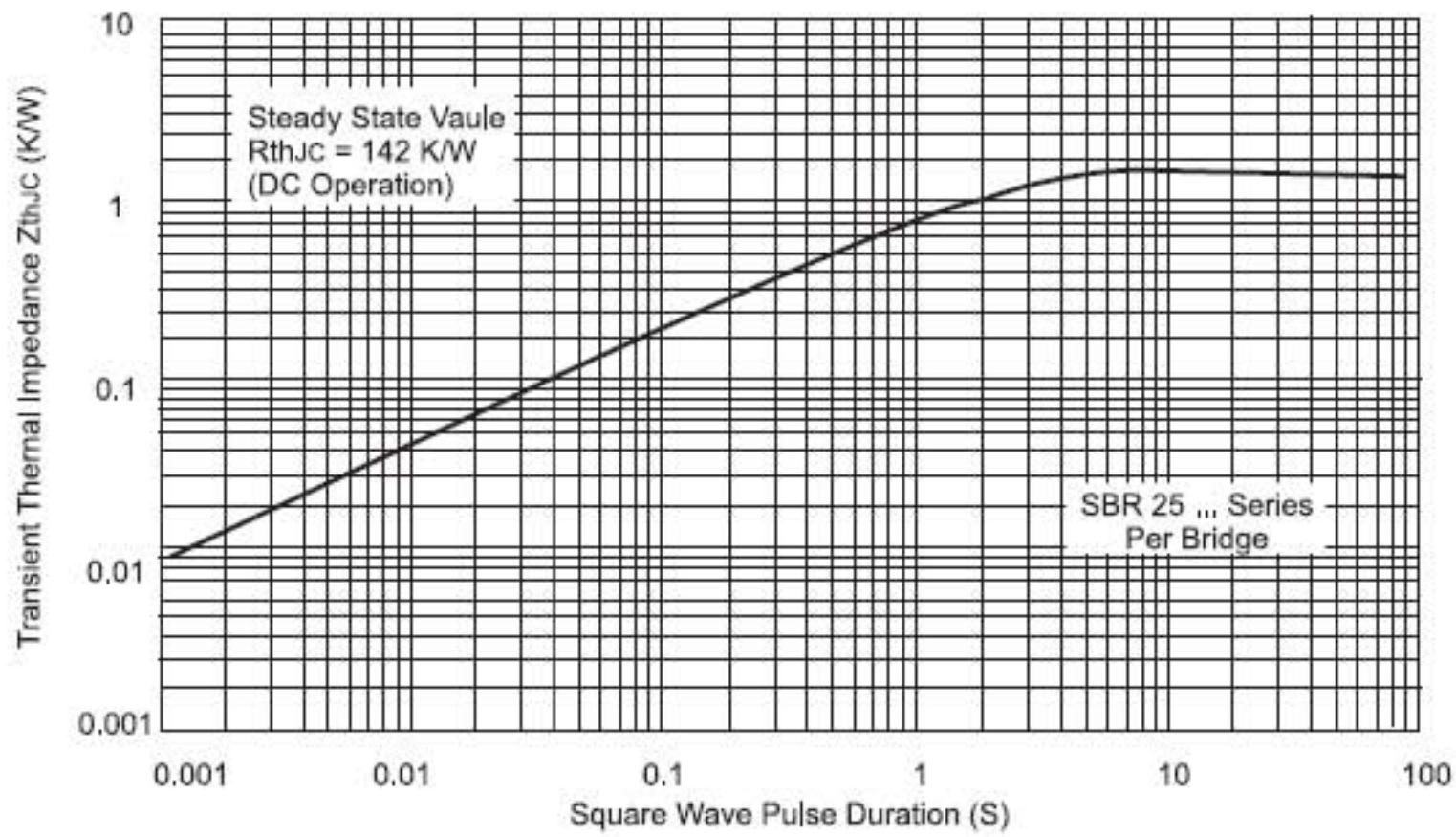


FIG.12 - Thermal Impedance Z_{thJC} Characteristics

