

# SKBPC25005/SBR25005 THRU SKBPC2516/SBR2516

## SILICON/GLASS PASSIVATED THREE PHASE BRIDGE RECTIFIERS

Voltage Range 50 to 1600 Volts      Current 25 Amperes

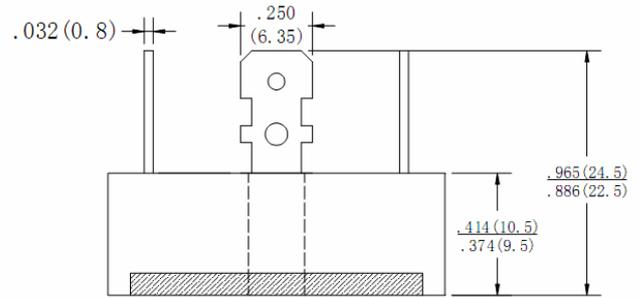
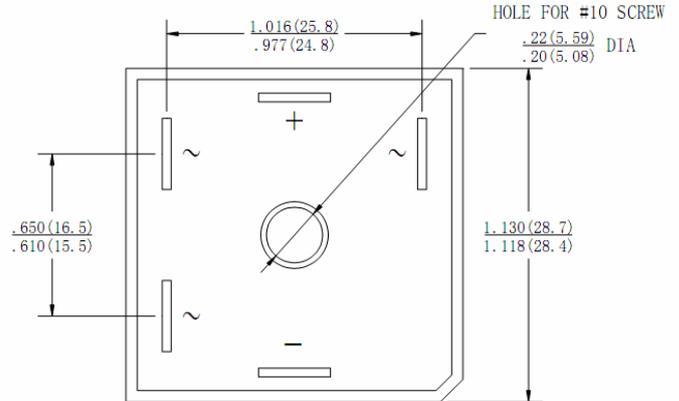
### FEATURES

- ◆ 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



METAL HEAT SINK

Dimensions in inches and (millimeters)

## 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%

Type Number		SKBPC	UNITS									
		/SBR										
		25005	2501	2502	2504	2506	2508	2510	2512	2514	2516	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	1200	1400	1600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	840	980	1120	V
Maximum DC blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	1200	1400	1600	V
Maximum Average Forward Rectified Current @ $T_C = 100^\circ C$	$I(AV)$	25										A
Non-Repetitive Peak Forward Surge Current (No Voltage Reapplied $t=8.3ms$ at 60HZ)	$I_{FSM}$	375										A
(No Voltage Reapplied $t=10ms$ at 50HZ)		360										
(100% VRRM Reapplied $t=8.3ms$ at 60HZ)		410										
(100% VRRM Reapplied $t=10ms$ at 50HZ)		450										

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	/SBR	/SBR	/SBR	/SBR	/SBR	/SBR	/SBR	/SBR	/SBR	/SBR	
	25005	2501	2502	2504	2506	2508	2510	2512	2514	25005	
I <sup>2</sup> t 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 <sup>2</sup> t	580									A <sup>2</sup> S
		635									
		410									
		450									
Forward Voltage (per element) @T <sub>J</sub> =25°C, @IFM=40APK per single junction	V <sub>F</sub>	1.26									V
Peak Reverse Current (per leg) @T <sub>J</sub> =25°C uA At Rated DC Blocking Voltage @T <sub>J</sub> =125°C	I <sub>R</sub>	10									μ A
		5.0									mA
RMS Isolation Voltage from Case to Lead	V <sub>ISO</sub>	2500									V
Thermal Resistance Junction to Case at DC Operation per Bridge	R <sub>θJC</sub>	1.42									K/W
Thermal Resistance Case to Heatsink Mounting Surface, Smooth, Flat and Greased	R <sub>θCS</sub>	0.2									K/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150									°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150									°C

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FIG.1-CURRENT RATING CHARACTERISTICS

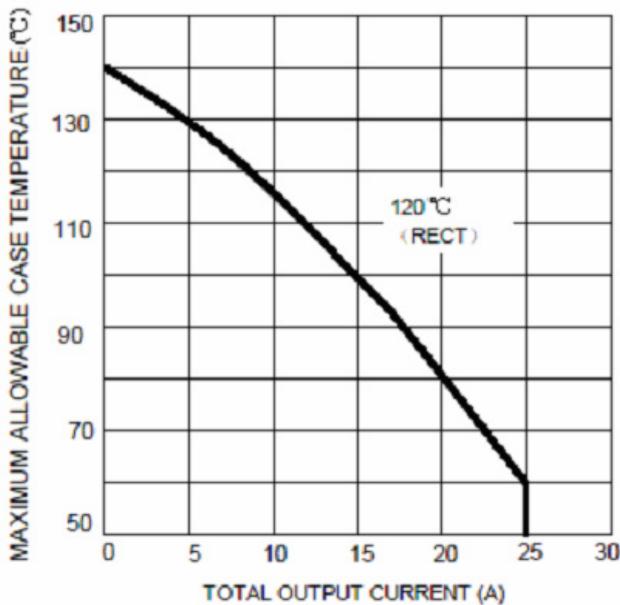


FIG.2-FORWARD VOLTAGE DROP CHARACTERISTICS

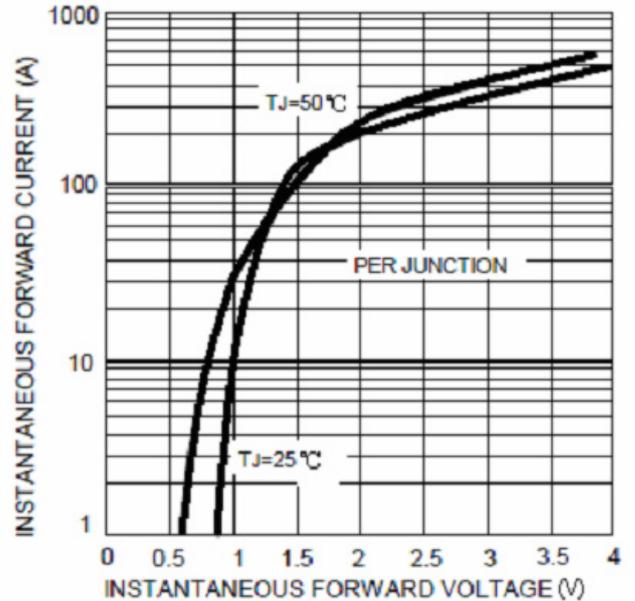


FIG.3-MAXIMUM NON-REPETITIVE SURGE CURRENT

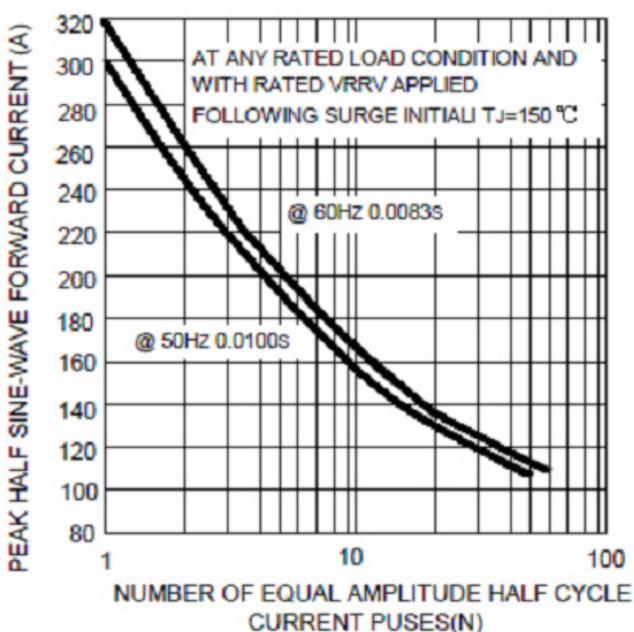
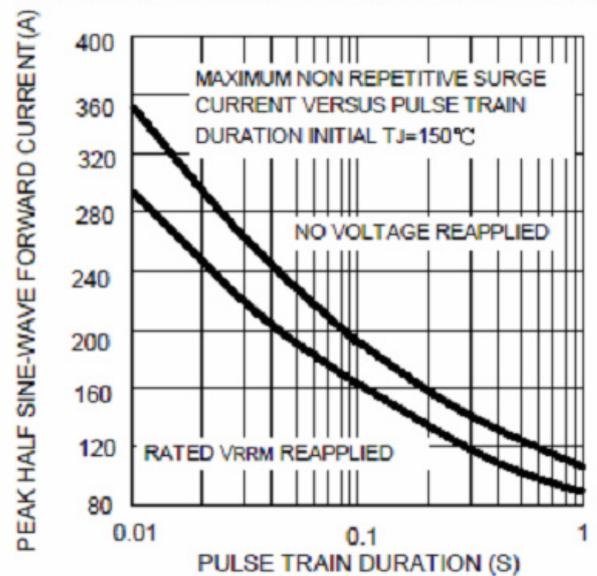


FIG.4-MAXIMUM NON-REPETITIVE SURGE CURRENT



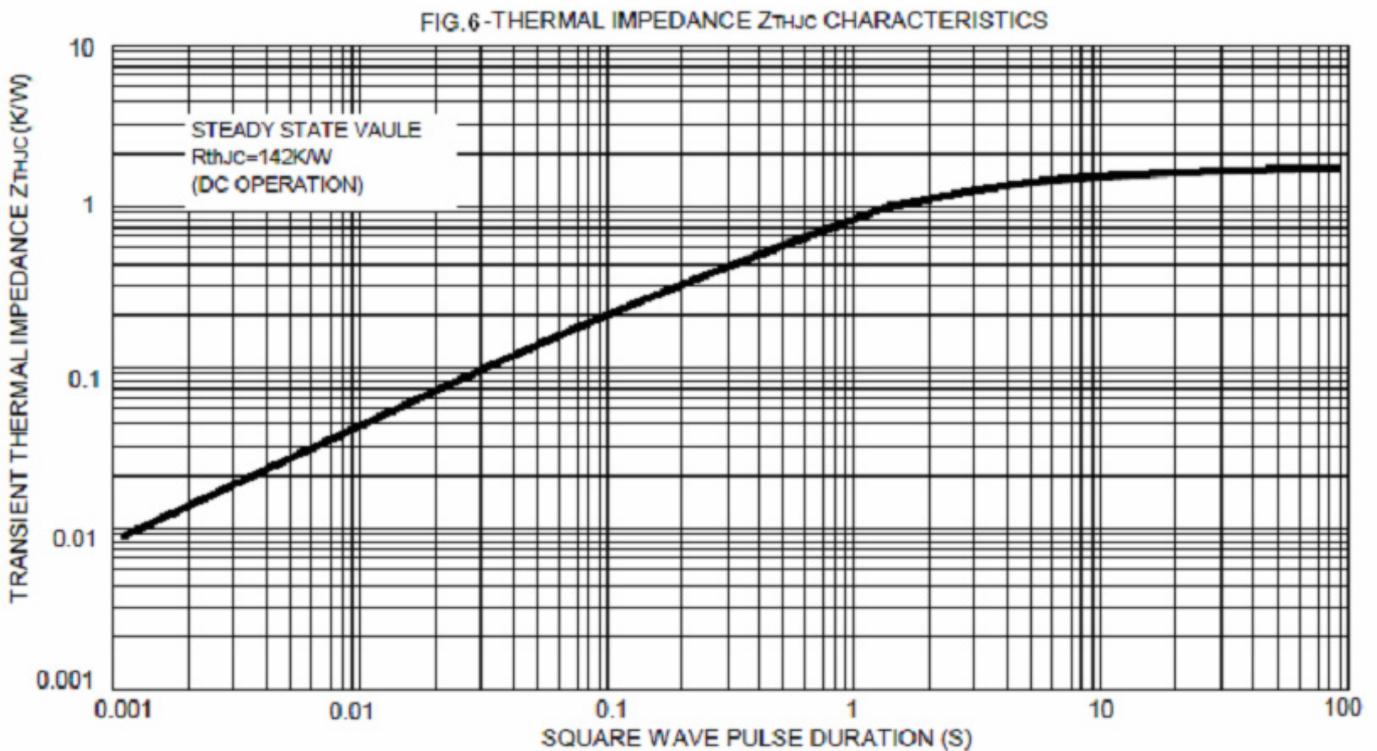
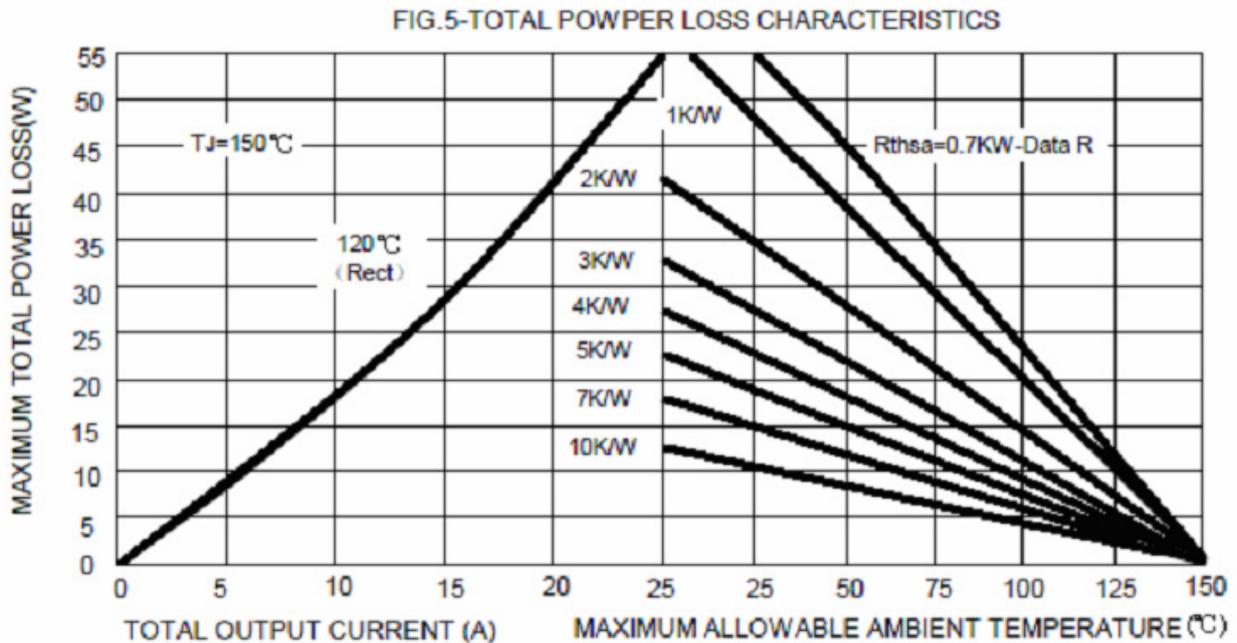
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Note: Specification are subject to change without notice. For more detail and update, please visit our website.