

# SKBPC35005 THRU SKBPC3516

## SILICON/GLASS PASSIVATED THREE PHASE BRIDGE RECTIFIERS

Voltage Range 50 to 1600 Volts      Current 35 Amperes

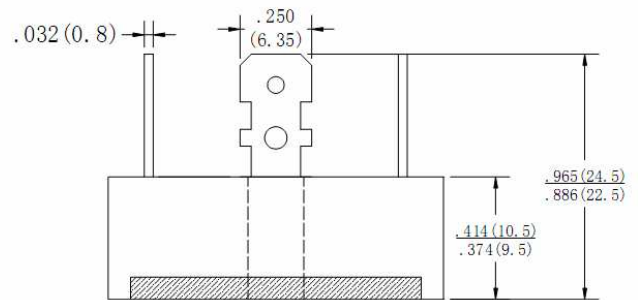
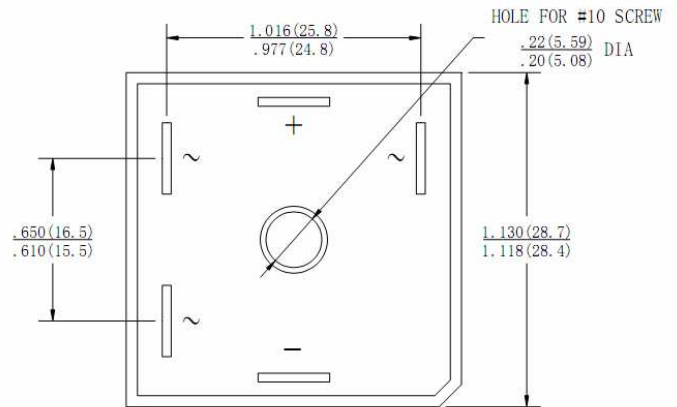
### FEATURES

- ◆ 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



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 35005	SKBPC 3501	SKBPC 3502	SKBPC 3504	SKBPC 3506	SKBPC 3508	SKBPC 3510	SKBPC 3512	SKBPC 3514	SKBPC 3516	UNITS
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 @ $T_C = 100^\circ C$	$I(AV)$	35										A
Non-Repetitive Peak Forward Surge Current (No Voltage Reapplied $t=8.3ms$ at 60HZ)	$I_{FSM}$	500										A
(No Voltage Reapplied $t=10ms$ at 50HZ)		475										
(100% VRRM Reapplied $t=8.3ms$ at 60HZ)		420										
(100% VRRM Reapplied $t=10ms$ at 50HZ)		400										

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Type Number	SKBPC	SKBPC	SKBPC	SKBPC	SKBPC	SKBPC	SKBPC	SKBPC	SKBPC	SKBPC	UNITS
	/SBR	/SBR	/SBR	/SBR	/SBR	/SBR	/SBR	/SBR	/SBR	/SBR	
	25005	2501	2502	2504	2506	2508	2510	2512	2514	25005	
<b>I<sup>2</sup>t Rating for fusing</b> (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	1030									A <sup>2</sup> S
		1130									
		730									
		800									
<b>Forward Voltage (per element)</b> @T <sub>J</sub> =25°C, @ I <sub>FM</sub> =40APK per single junction	V <sub>F</sub>	1.19									V
<b>Peak Reverse Current (per leg) @T<sub>J</sub>=25°C</b> At Rated DC Blocking Voltage @T <sub>J</sub> =125°C	I <sub>R</sub>	10									μ A
		5.0									mA
<b>RMS Isolation Voltage from Case to Lead</b>	V <sub>ISO</sub>	2500									V
<b>Thermal Resistance Junction to Case at DC Operation per Bridge</b>	R <sub>θJC</sub>	1.16									K/W
<b>Thermal Resistance Case to Heatsink Mounting Surface, Smooth, Flat and Greased</b>	R <sub>θCS</sub>	0.2									K/W
<b>Operating Temperature Range</b>	T <sub>J</sub>	-55 to +150									°C
<b>Storage Temperature Range</b>	T <sub>STG</sub>	-55 to +150									°C

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## RATING AND CHARACTERISTIC CURVES SKBPC35005 THRU SKBPC3516

FIG.1-CURRENT RATING CHARACTERISTICS

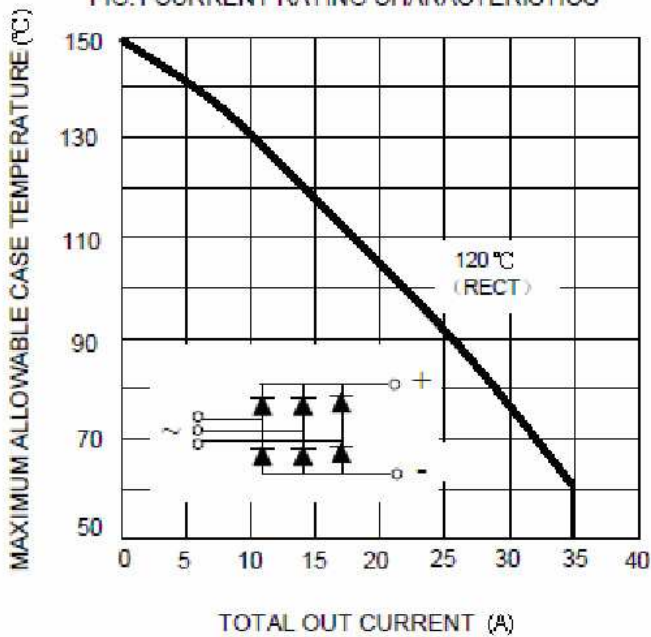


FIG.2-FORWARD VOLTAGE DROP CHARACTERISTICS

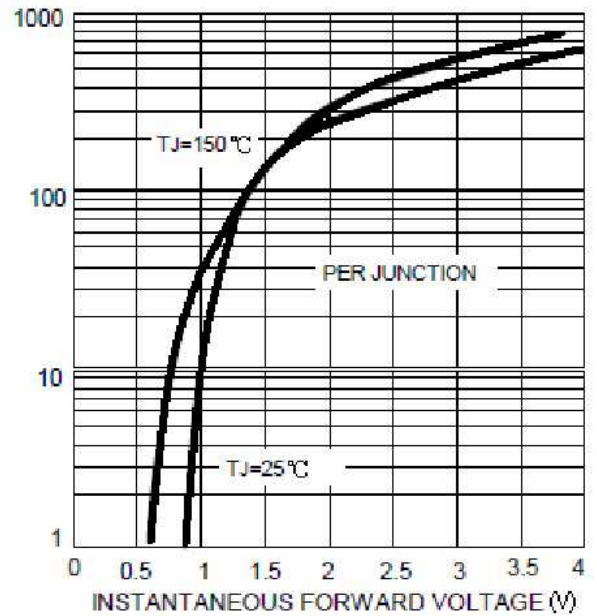


FIG.3-MAXIMUM NON-REPETITIVE SURGE CURRENT

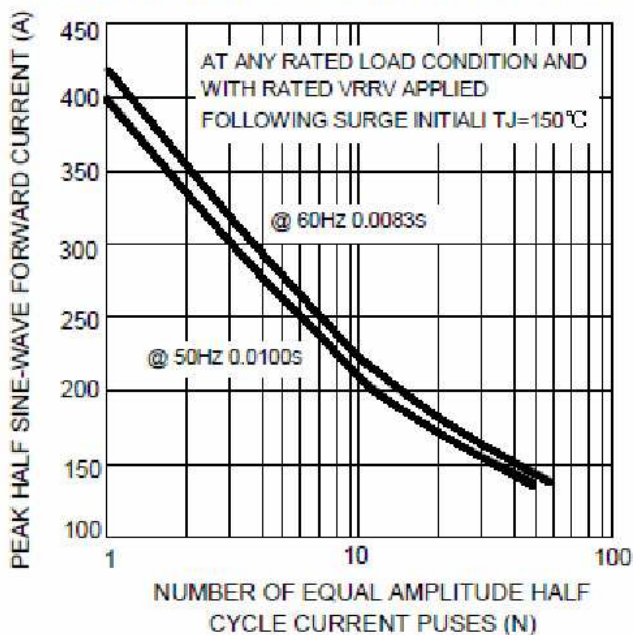
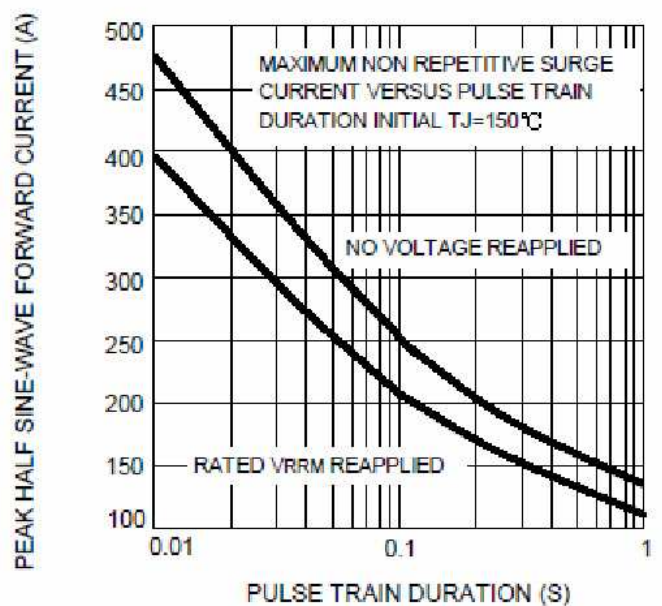


FIG.4-MAXIMUM NON-REPETITIVE SURGE CURRENT



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FIG.5-TOTAL POWER LOSS CHARACTERISTICS

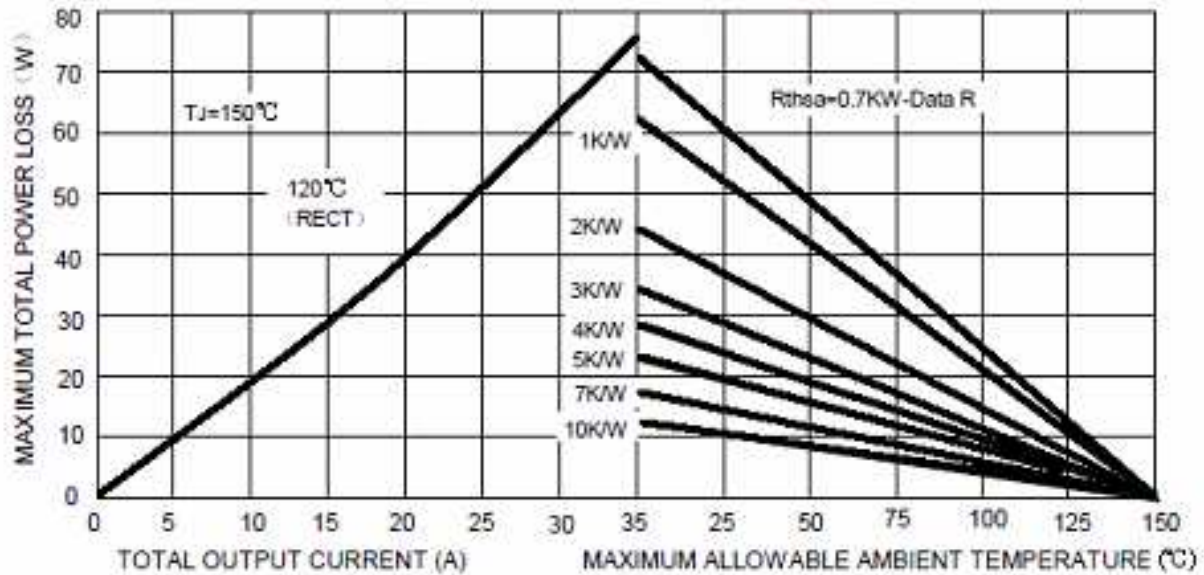
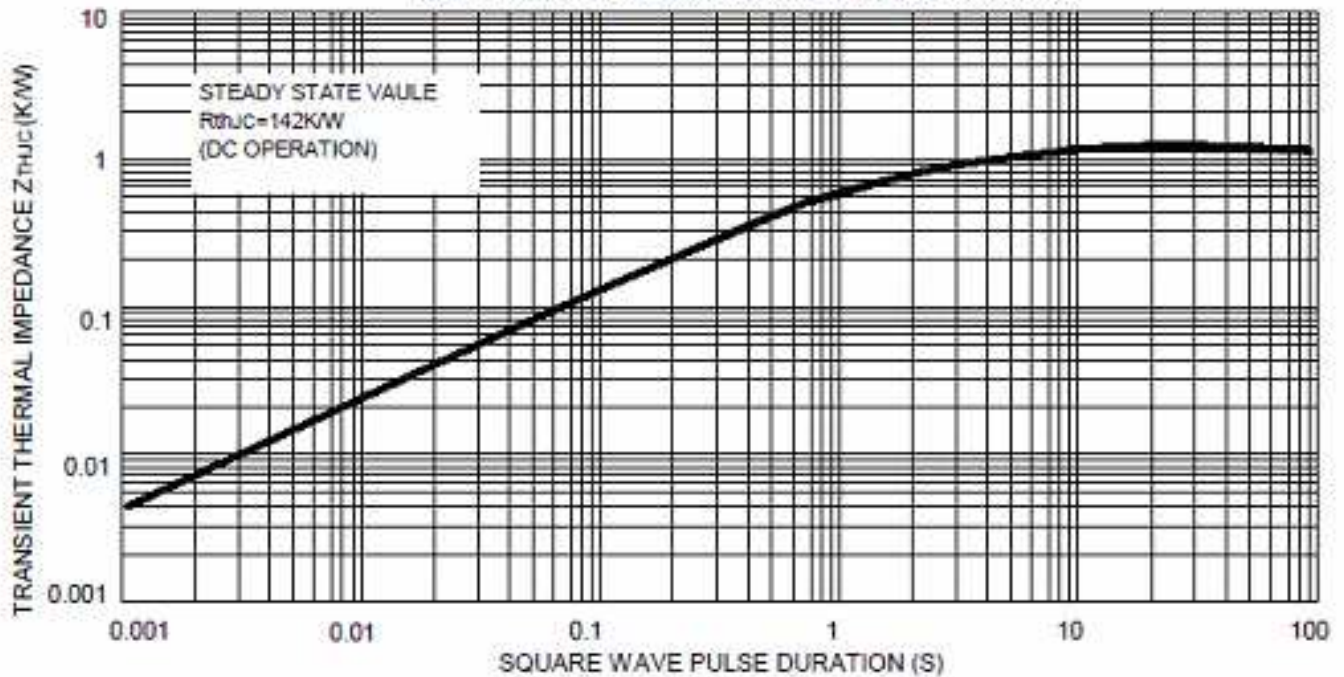


FIG.6-THERMAL IMPEDANCE  $Z_{thJC}$  CHARACTERISTICS



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