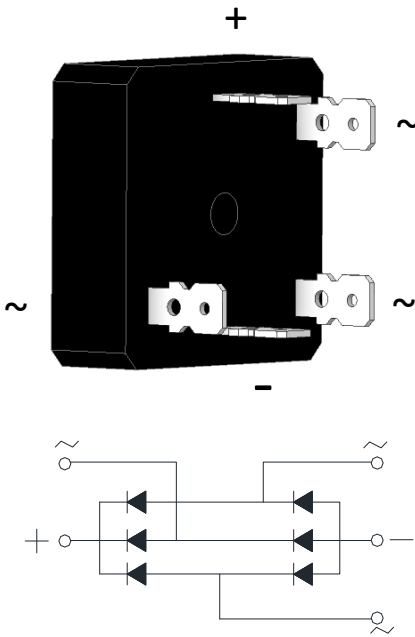


## Three Phase Bridge Rectifiers



### Features

- UL recognition, file #E230084
- Glass passivated chip junction
- Thin single in-line package
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### Typical Applications

General purpose use in AC/DC bridge full wave rectification for Server、 Frequency converter、 Industrial power supply.

### Mechanical Data

- **Package:** SKBPC75  
Molding compound meets UL 94 V-0 flammability rating
- **Terminals:** Nickel plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

### ■Maximum Ratings (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SKBPC7506	SKBPC7508	SKBPC7510	SKBPC7512	SKBPC7514	SKBPC7516
Device marking code			SKBPC7506	SKBPC7508	SKBPC7510	SKBPC7512	SKBPC7514	SKBPC7516
Maximum Repetitive Peak Reverse Voltage	VRRM	V	600	800	1000	1200	1400	1600
Maximum RMS Voltage	VRMS	V	420	560	700	840	980	1120
Maximum DC blocking Voltage	VDC	V	600	800	1000	1200	1400	1600
Average rectified output current @60Hz sine wave, R-load	With heatsink T <sub>c</sub> =85°C	I <sub>O</sub>	A	75				
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, T <sub>j</sub> =25°C				I <sub>FSM</sub>	A	800		
Current squared time @1ms≤t≤8.3ms T <sub>j</sub> =25°C, Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> s	2656					
Storage temperature	T <sub>stg</sub>	°C	-55 ~ +150					
Junction temperature	T <sub>j</sub>	°C	-55 ~ +150					
Dielectric strength @ Terminals to case, AC 1 minute	V <sub>dis</sub>	KV	2.5					
Mounting torque @Recommend torque: 5kg·cm	Tor	kg·cm	8					



# SKBPC7506 THRU SKBPC7516

## ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SKBPC7506	SKBPC7508	SKBPC7510	SKBPC7512	SKBPC7514	SKBPC7516
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =37.5A	1.1				1.2	
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	μA	T <sub>j</sub> =25°C	5					
			T <sub>j</sub> =125°C	500					
Typical junction capacitance	C <sub>j</sub>	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	315					

## ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	SKBPC7506	SKBPC7508	SKBPC7510	SKBPC7512	SKBPC7514	SKBPC7516
Thermal Resistance	Between junction and ambient, Without heatsink	R <sub>θJ-A</sub>	°C/W	16.0					
	Between junction and case, With heatsink	R <sub>θJ-C</sub>		0.75					

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

## ■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SKBPC7506 – SKBPC7516	A1	Approximate 32.5	50	50	500	Paper Box

## ■ Characteristics (Typical)

FIG1: I<sub>o</sub>-T<sub>c</sub> Curve

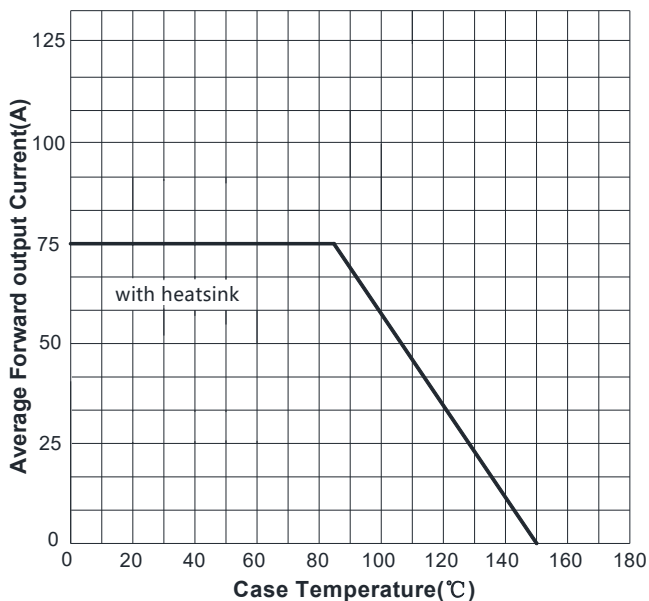
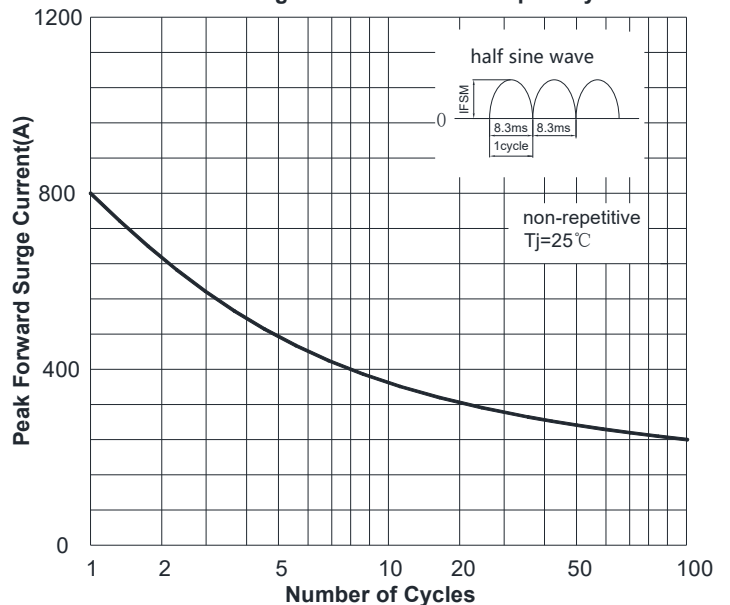


FIG2: Surge Forward Current Capability





# SKBPC7506 THRU SKBPC7516

FIG3: Typical Forward Voltage

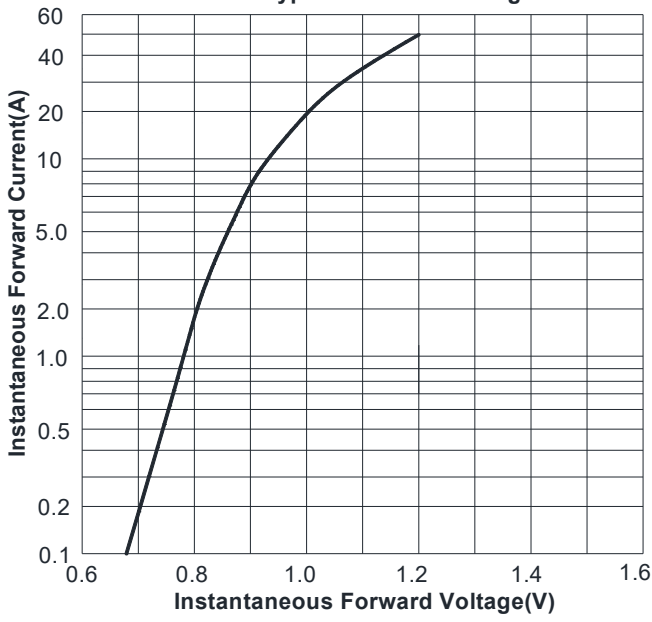
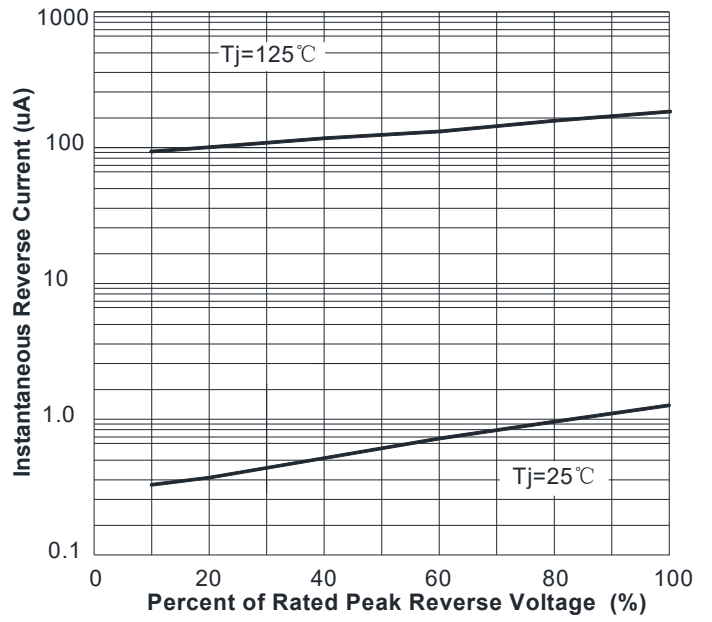
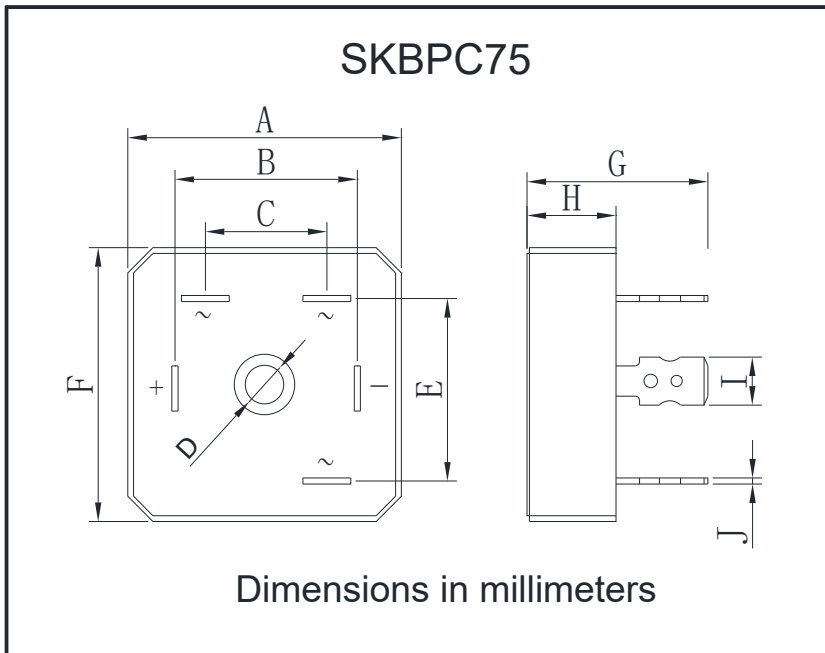


FIG4: Typical Reverse Characteristics



## ■ Outline Dimensions



SKBPC75		
Dim	Min	Max
A	35.5	36.5
B	23.5	24.5
C	15.5	16.5
D	4.5	5.5
E	23.5	24.5
F	35.5	36.5
G	22.5	24.5
H	11.2	12.2
I	6.1	6.5
J	0.6	1.0



## SKBPC7506 THRU SKBPC7516

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