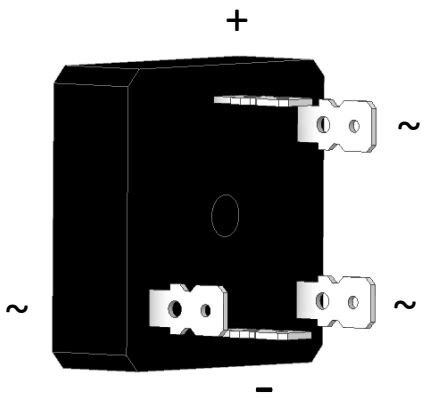
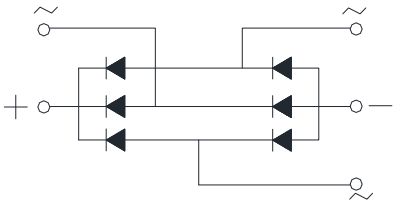
Three Phase Bridge Rectifiers





Features

- 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 (Ta=25℃ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	SKBPC7506	SKBCP7508	SKBPC7510	SKBPC7512	SKBPC7514	SKBPC7516
Device marking code				SKBPC7506	SKBCP7508	SKBPC7510	SKBPC7512	SKBPC7514	SKBPC7516
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	V	600	800	1000	1200	1400	1600
Maximum RMS Voltage		V_{RMS}	V	420	560	700	840	980	1120
Maximum DC blocking Voltage		V_{DC}	V	600	800	1000	1200	1400	1600
Average rectified output current @60Hz sine wave, R-load	With heatsink Tc =85℃	I_O	A	75					
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃		I_{FSM}	A	800					
Current squared time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode		I^2t	A^2s	2656					
Storage temperature		T_{stg}	℃	-55 ~ +150					
Junction temperature		T_j	℃	-55 ~ +150					
Dielectric strength @ Terminals to case, AC 1 minute		V_{dis}	KV	2.5					
Mounting torque @Recommend torque：5kg·cm		Tor	kg·cm	8					

■Electrical Characteristics（T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SKBPC7506	SKBCP7508	SKBPC7510	SKBPC7512	SKBPC7514	SKBPC7516
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=37.5A	1.1				1.2	
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	T_j =25℃	5					
			T_j =125℃	500					
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	315					

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	SKBPC7506	SKBCP7508	SKBPC7510	SKBPC7512	SKBPC7514	SKBPC7516
Thermal Resistance	Between junction and ambient, Without heatsink	$R_{\theta J-A}$	℃/W	16.0					
	Between junction and case, With heatsink	$R_{\theta J-C}$		0.75					

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

■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM 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:Io-Tc Curve

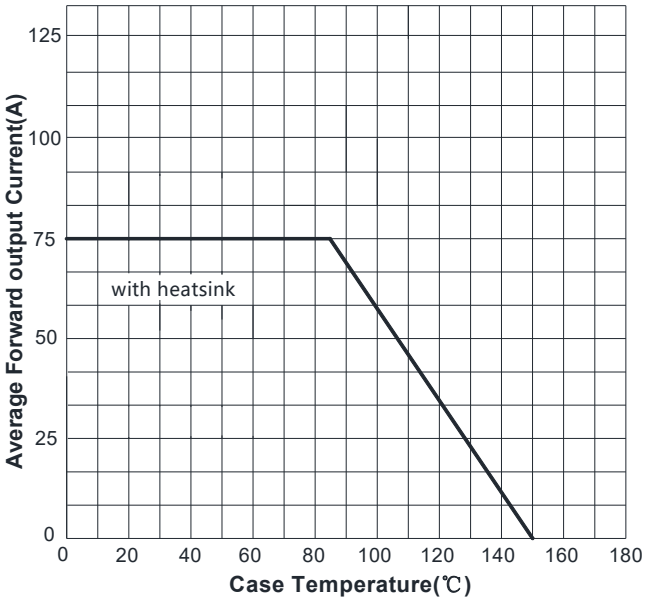


FIG2:Surge Forward Current Capability

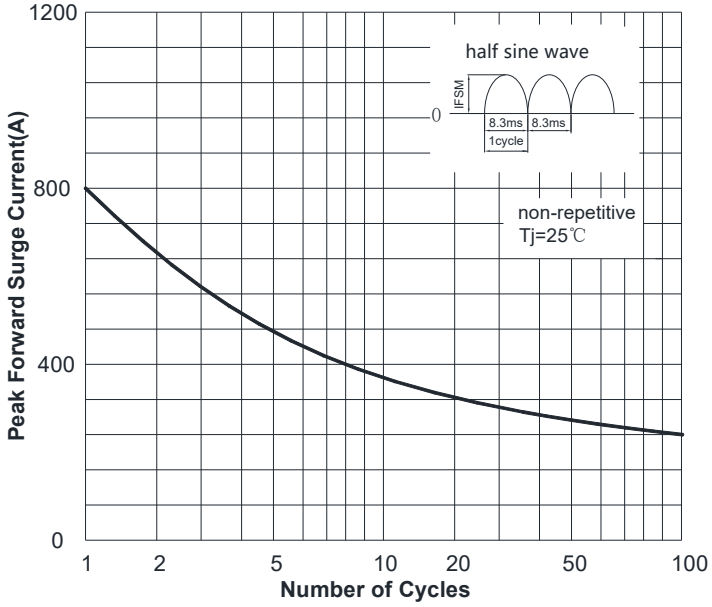


FIG3: Typical Forward Voltage

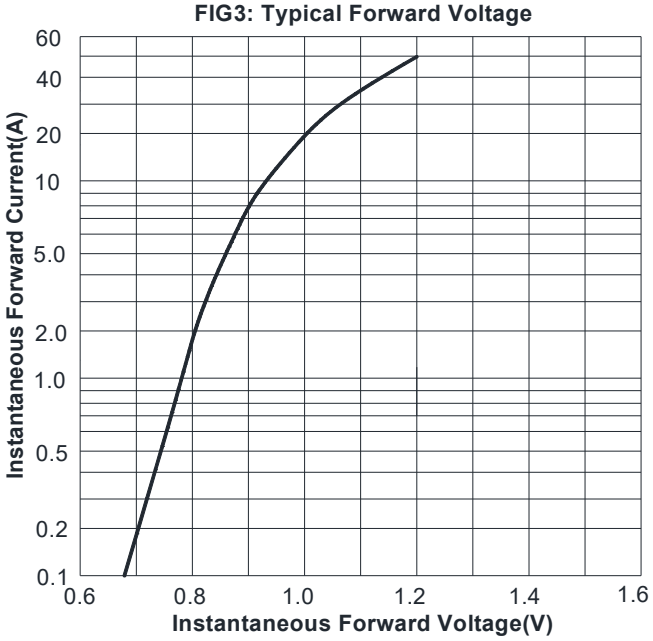
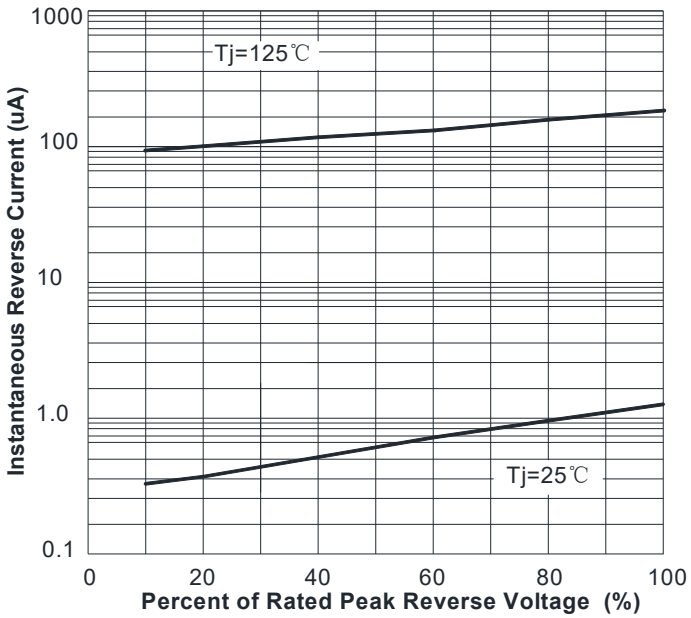
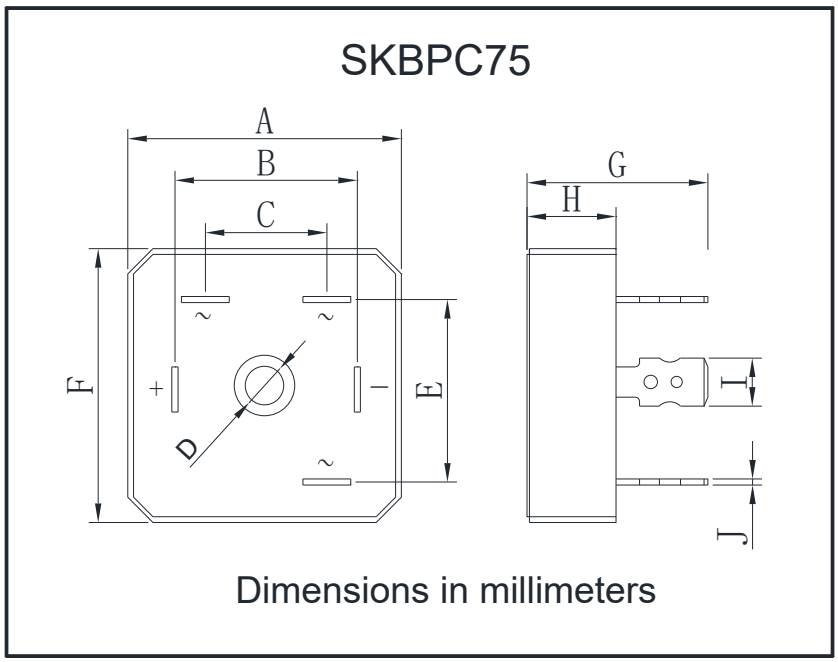


FIG4:Typical Reverse Characteristics



■ 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

Notice

All products, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise. Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in STARSEA's terms and conditions of sale for such products, STARSEA assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of STARSEA products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.