



E502650

## Features

- Glass Passivated Chip Junction
- High Surge Current Capability
- Lead Free Finish/RoHS Compliant (Note 1) ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating

## Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value		Unit
		SKBPC7510	SKBPC7516	
Peak Repetitive Reverse Voltage	$V_{RRM}$	1000	1600	V
Working Peak Reverse Voltage	$V_{RWM}$			
DC Blocking Voltage	$V_R$			
RMS Reverse Voltage	$V_{RMS}$	700	1120	V
Average Rectified Forward Current @ $T_C=85^\circ\text{C}$	$I_{F(AV)}$	75		A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	$I_{FSM}$	800		A
$I^2t$ Rating for Fusing @ $1\text{ms} \leq t \leq 8.3\text{ms}$	$I^2t$	2656		$\text{A}^2\text{s}$
Dielectric strength @ Terminals to Case, AC 1 Minute	$V_{dis}$	2.5		KV

## Marking Code

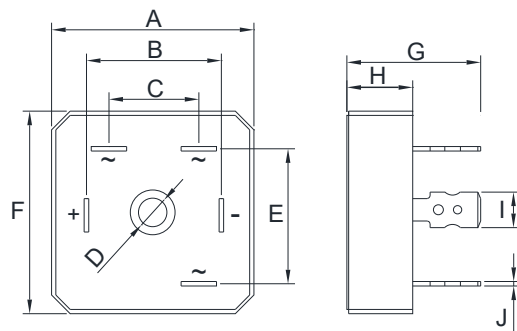
Part Number	Marking Code
SKBPC7510	SKBPC7510
SKBPC7516	SKBPC7516

Marking Diagram	Internal Structure
<p>MCC XXXXXXX</p> <p>Marking Code: XXXXXXXX</p>	

Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

# 75 Amp Three Phase Bridge Rectifiers 1000 to 1600 Volts

## SKBPC75



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	1.398	1.437	35.50	36.50	
B	0.925	0.965	23.50	24.50	
C	0.610	0.650	15.50	16.50	
D	0.177	0.217	4.50	5.50	
E	0.925	0.965	23.50	24.50	
F	1.398	1.437	35.50	36.50	
G	0.886	0.965	22.50	24.50	
H	0.441	0.480	11.20	12.20	
I	0.240	0.256	6.10	6.50	
J	0.024	0.039	0.60	1.00	

## Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
$T_J$	Operating Junction Temperature Range		-55		150	°C
$T_{stg}$	Storage Temperature Range		-55		150	°C
$R_{th(J-C)}$	Thermal Resistance from Junction to Case	Note 1		0.75		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient			16		°C/W

Note: 1. Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

## Mechanical Data

Recommend Mounting Torque: 5 kg•cm

## Electrical Characteristics @ 25°C Unless Otherwise Specified(Per Diode)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	$V_F$	$I_F=37.5A; T_J=25^{\circ}C$			1.2	V
Reverse Current	$I_R$	at Rated $V_R; T_J=25^{\circ}C$ at Rated $V_R; T_J=125^{\circ}C$			5 500	uA
Junction Capacitance	$C_J$	$V_R=4V; f=1MHz; T_J=25^{\circ}C$		315		pF

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

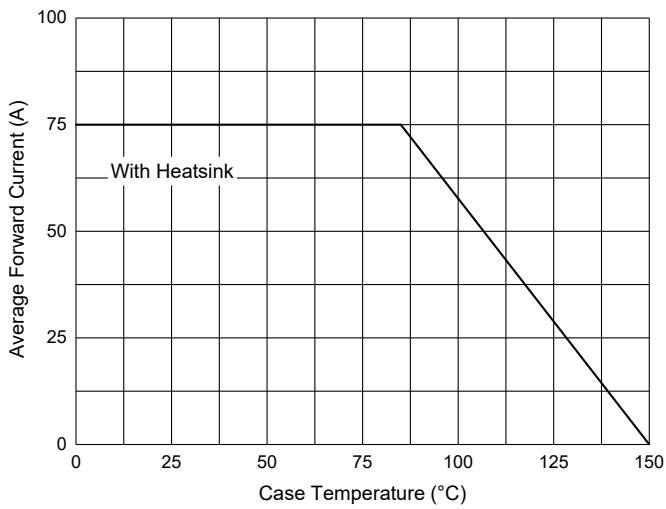


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current (Per Diode)

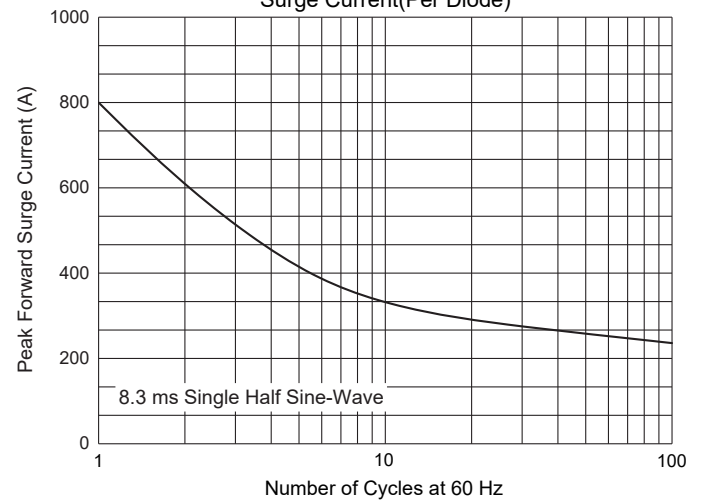


Fig. 3 - Typical Forward Characteristics

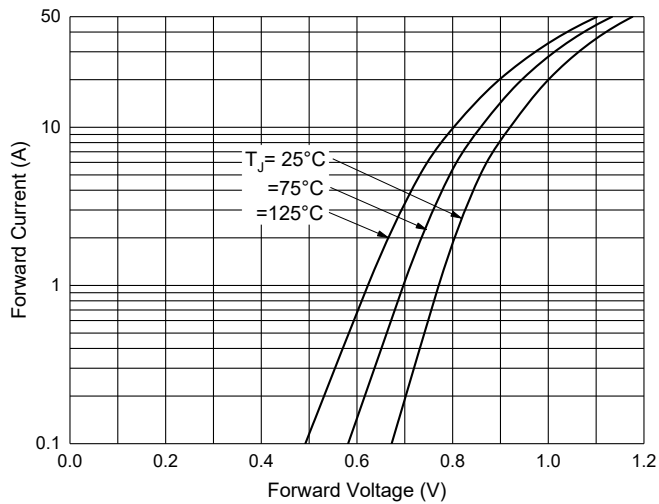


Fig. 4 - Typical Reverse Leakage Characteristics

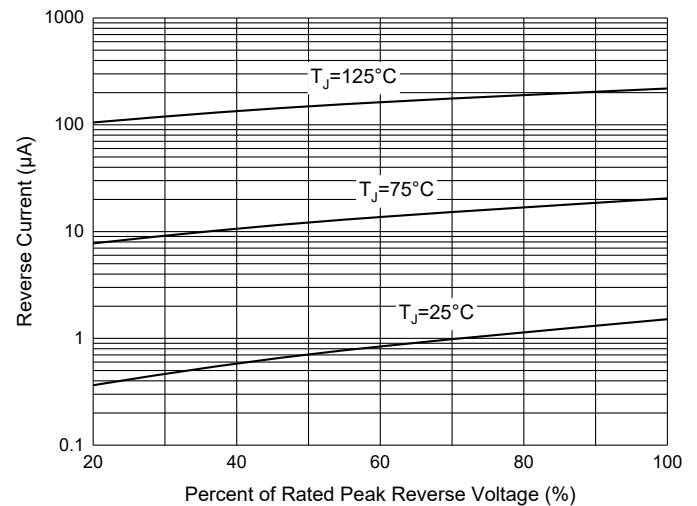
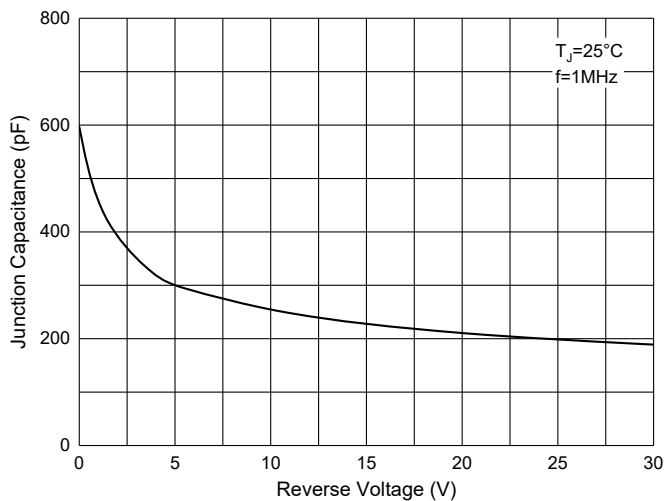


Fig. 5 - Typical Capacitance Characteristics



## Ordering Information

Device	Packing
Part Number-BP	Bulk:50pcs/Box,400pcs/Carton

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