	E502650

75 Amp Three Phase Bridge Rectifiers 1000 to 1600 Volts

Features

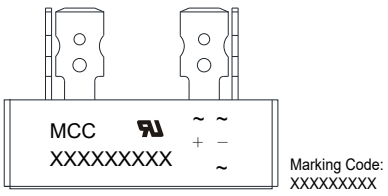
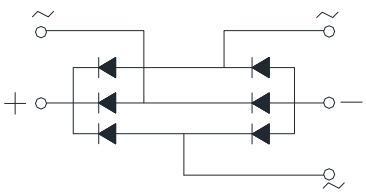
- Glass Passivated Chip Junction
- High Surge Current Capability
- Lead Free Finish/RoHS Compliant (Note 1)("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating

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°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 @1ms≤t≤8.3ms	I^2t	2656		A^2s
Dielectric strength @Terminals to Case, AC 1 Minute	V_{dis}	2.5		KV

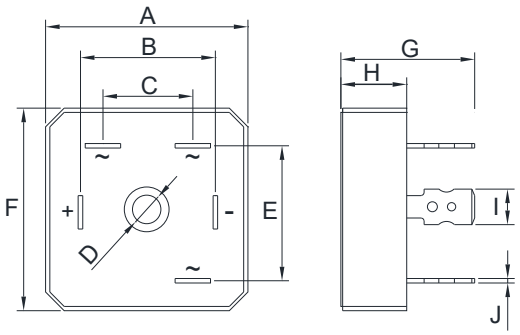
Marking Code

Part Number	Marking Code
SKBPC7510	SKBPC7510
SKBPC7516	SKBPC7516

Marking Diagram	Internal Structure
	

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

SKBPC75



DIMENSIONS					
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
$Rth_{(J-C)}$	Thermal Resistance from Junction to Case	Note 1		0.75		°C/W
$Rth_{(J-A)}$	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°C			1.2	V
Reverse Current	I_R	at Rated V_R;T_J=25°C at Rated V_R;T_J=125°C			5 500	uA
Junction Capacitance	C_J	V_R=4V;f=1MHz;T_J=25°C		315		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

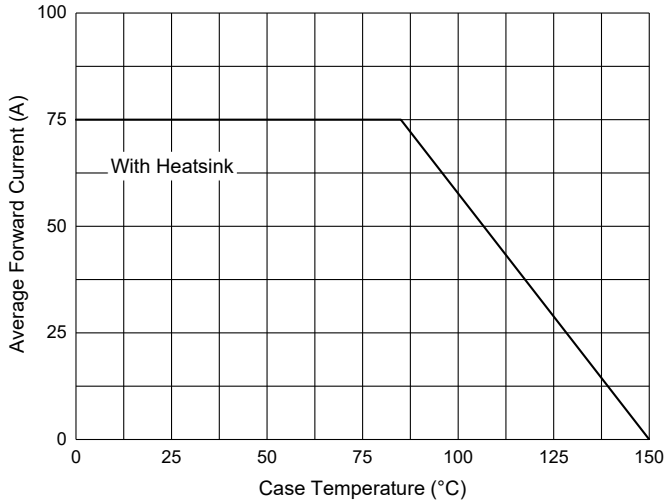


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current(Per Diode)

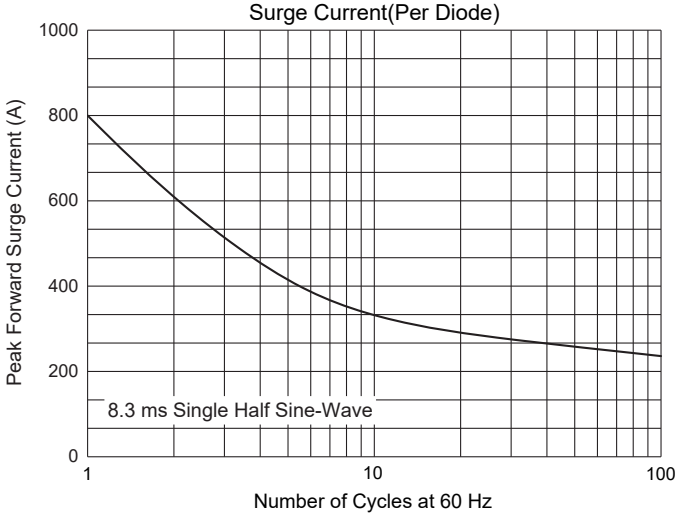


Fig. 3 - Typical Forward Characteristics

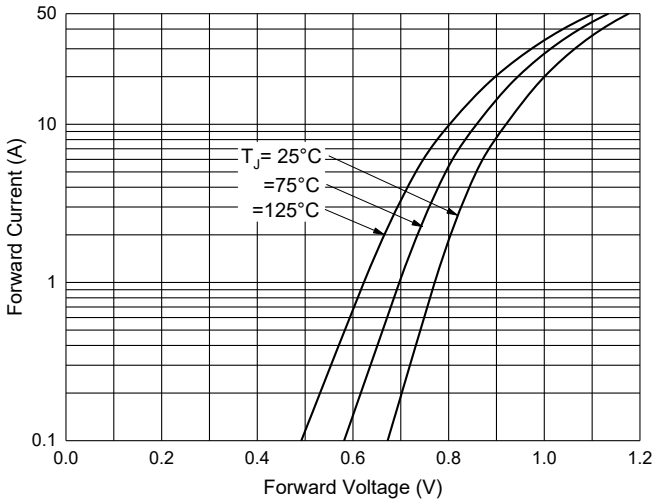


Fig. 4 - Typical Reverse Leakage Characteristics

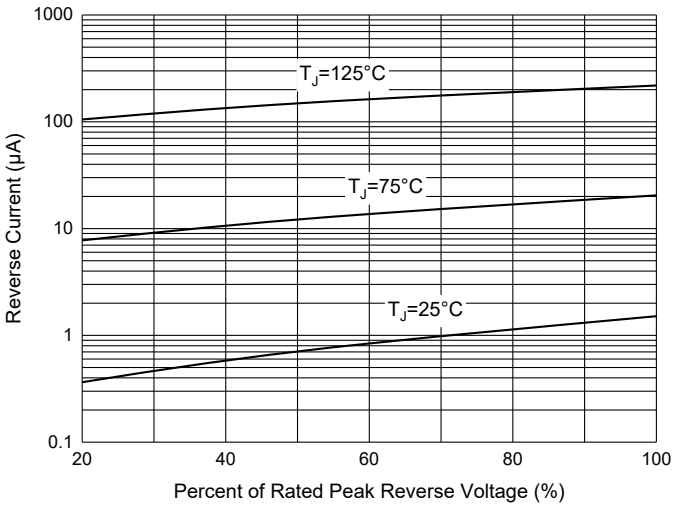
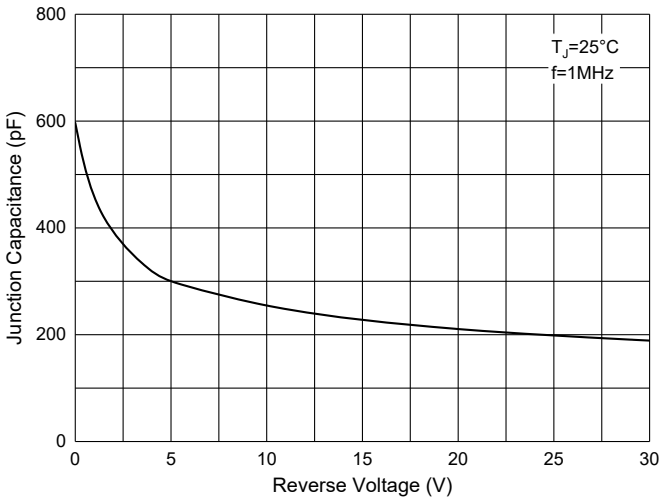


Fig. 5 - Typical Capacitance Characteristics



Ordering Information

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