



E502650

Features

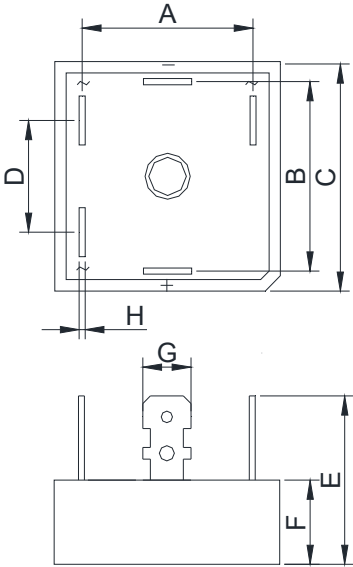
- Glass Passivated Chip Junction
- High Surge Current Capability
- Lead Free Finish/RoHS Compliant (Note 1)("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating

Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value	Unit
		SKBPC3516	
Peak Repetitive Reverse Voltage	$V_{RRM}$	1600	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{RMS}$	1120	V
Average Rectified Forward Current @ $T_C=55^{\circ}C$	$I_{F(AV)}$	35	A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	$I_{FSM}$	425	A
$I^2t$ Rating for Fusing @ $1ms \leq t \leq 8.3ms$	$I^2t$	750	A <sup>2</sup> s
Dielectric strength @ Terminals to Case, AC 1 Minute	$V_{dis}$	2.5	KV

35 Amp  
Three Phase  
Bridge Rectifiers  
1600 Volts

SKBPC



Internal Structure

Simplified Outline	Graphic Symbol

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

DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.909	0.949	23.10	24.10	
B	0.909	0.949	23.10	24.10	
C	1.110	1.134	28.20	28.80	
D	0.630	0.669	16.00	17.00	
E	/	0.984	/	25.00	
F	0.425	0.441	10.80	11.20	
G	0.244	0.252	6.20	6.40	
H	0.030	0.033	0.75	0.85	

## 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		1.35		°C/W

## Mechanical Data

Max. Mounting Torque: 10 kg•cm

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	$V_F$	$I_F=17.5A; T_J=25^{\circ}C$			1.2	V
Reverse Current	$I_R$	at Rated $V_R; T_J=25^{\circ}C$			10	uA
Junction Capacitance	$C_J$	$V_R=4V; f=1MHz; T_J=25^{\circ}C$		155		pF

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

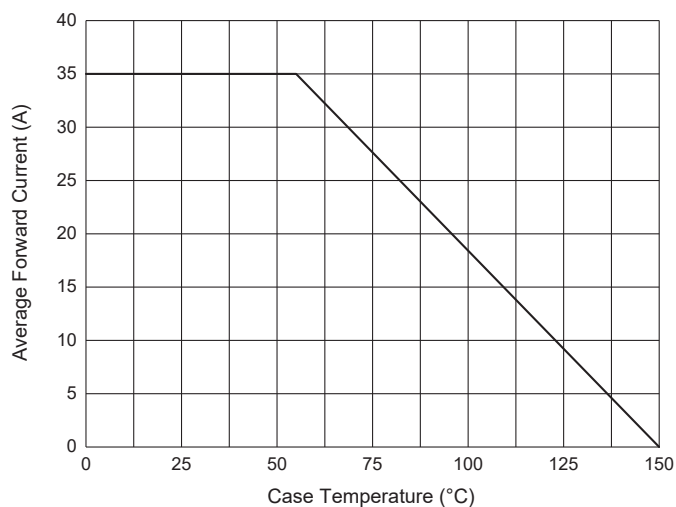


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current(Per Diode)

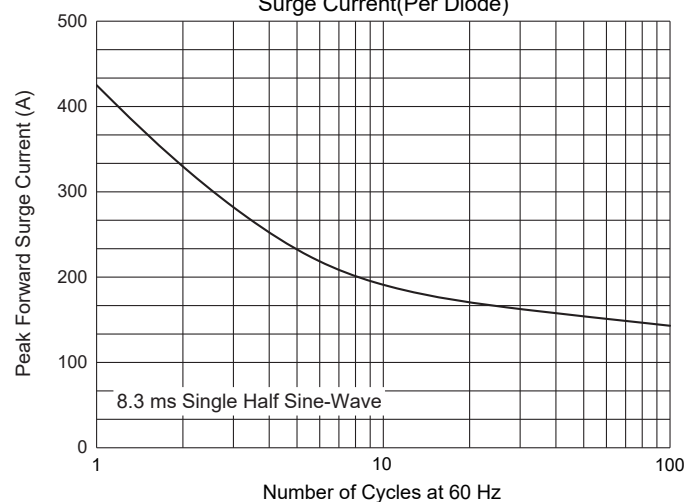


Fig. 3 - Typical Forward Characteristics

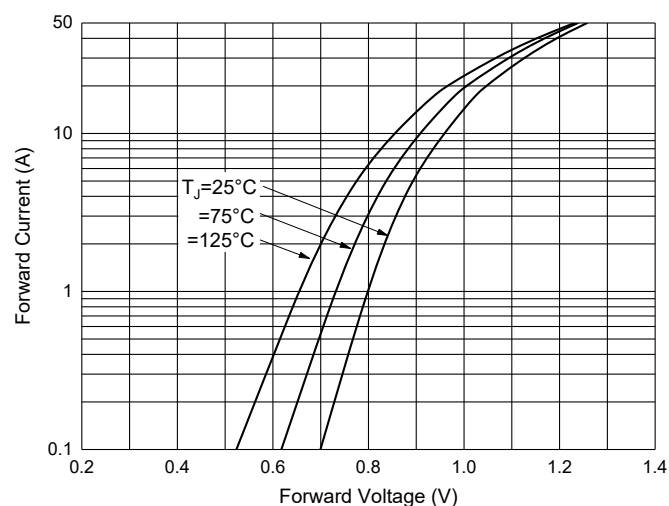


Fig. 4 - Typical Reverse Leakage Characteristics

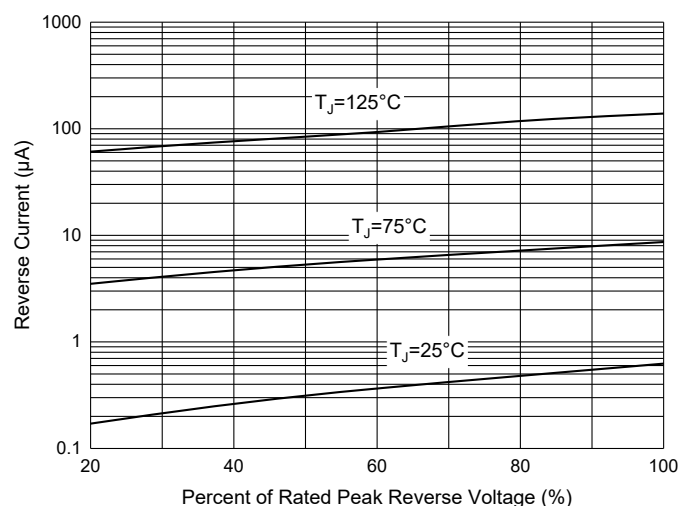
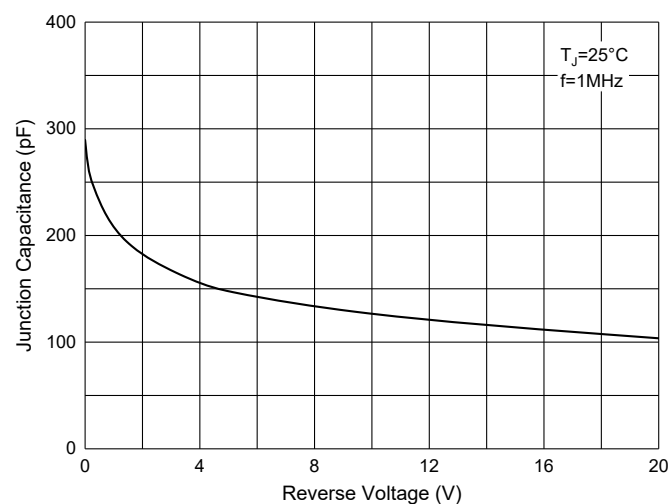


Fig. 5 - Typical Capacitance Characteristics



## Ordering Information

Device	Packing
SKBPC3516-BP	Bulk:50pcs/Box,400pcs/Carton

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