

	<b>E502650</b>
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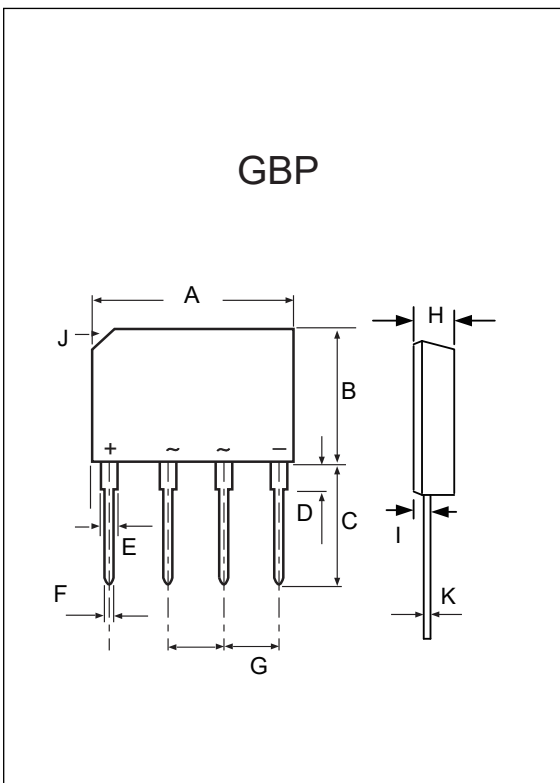
**Features**

- Halogen Free. "Green" Device (Note 1)
- Glass Passivated Chip Junction
- High Surge Forward Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note 2)("P" Suffix Designates RoHS Compliant. See Ordering Information)

# 4 Amp Fast Recovery Bridge Rectifiers 1000 Volts

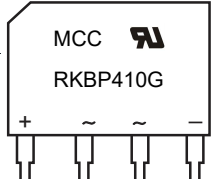
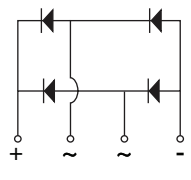
**Maximum Ratings @ 25°C (Unless Otherwise Specified)**

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	1000	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{RMS}$	700	V
Average Rectified Forward Current @ $T_C=125^\circ\text{C}$	$I_{F(AV)}$	4	A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	$I_{FSM}$	130	A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		260	
$I^2t$ Rating for Fusing @ $1\text{ms} \leq t \leq 8.3\text{ms}$	$I^2t$	70	$\text{A}^2\text{s}$
Dielectric strength @ Terminals to Case, AC 1 Minute	$V_{dis}$	2	KV



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.561	0.580	14.25	14.75	
B	0.406	0.417	10.10	10.60	
C	0.561	0.581	14.25	14.73	
D	0.071	0.087	1.80	2.20	
E	0.046	0.056	1.17	1.42	
F	0.030	0.034	0.76	0.86	
G	0.140	0.160	3.56	4.06	
H	0.131	0.161	3.35	4.10	
I	0.031	0.043	0.80	1.10	
J	0.106 X 45°		2.70 X 45°		
K	0.012	0.025	0.30	0.64	

**Internal Structure**

Simplified Outline	Graphic Symbol
	

- Note:
1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
  2. High temperature solder exemption applied, see EU directive annex 7a.

## 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		3		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient	Without Heatsink		45		°C/W

Note:

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

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	$V_F$	$I_F=2A; T_J=25^\circ C$			1.3	V
Reverse Current	$I_R$	at Rated $V_R; T_J=25^\circ C$ at Rated $V_R; T_J=125^\circ C$			5 200	$\mu A$
Junction Capacitance	$C_J$	$V_R=4V; f=1MHz; T_J=25^\circ C$		36		pF
Reverse Recovery Time	$t_{rr}$	$I_F=0.5A; I_R=1.0A; I_{RR}=0.25A; T_J=25^\circ C$			500	nS

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

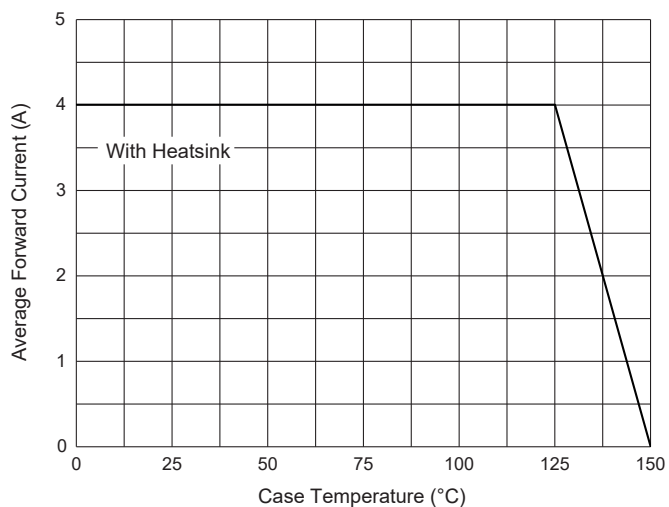


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

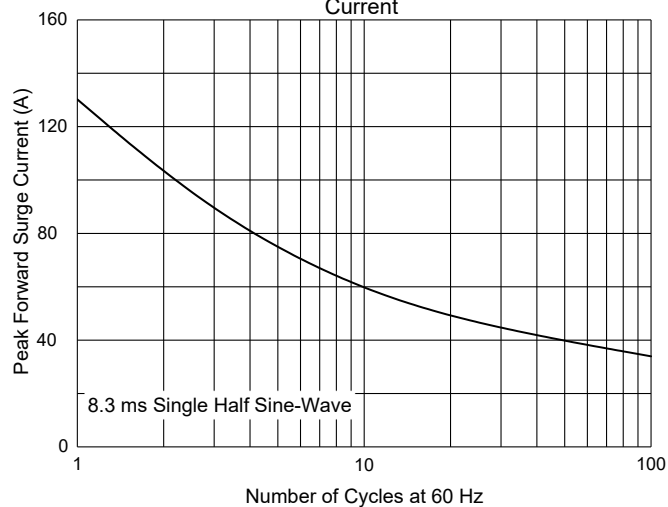


Fig. 3 - Typical Forward Characteristics

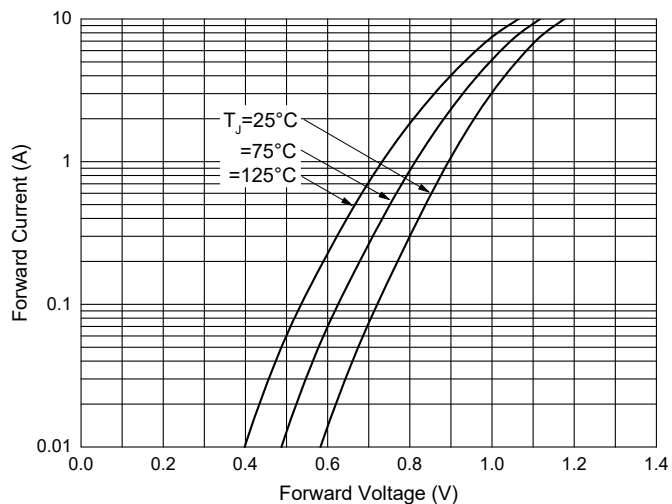


Fig. 4 - Typical Reverse Leakage Characteristics

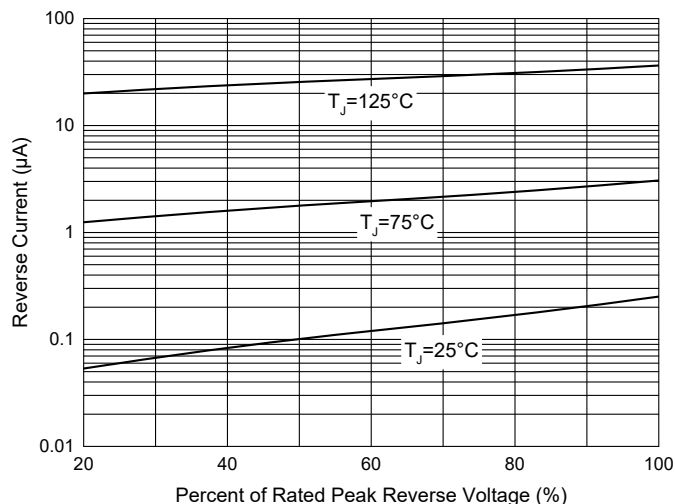
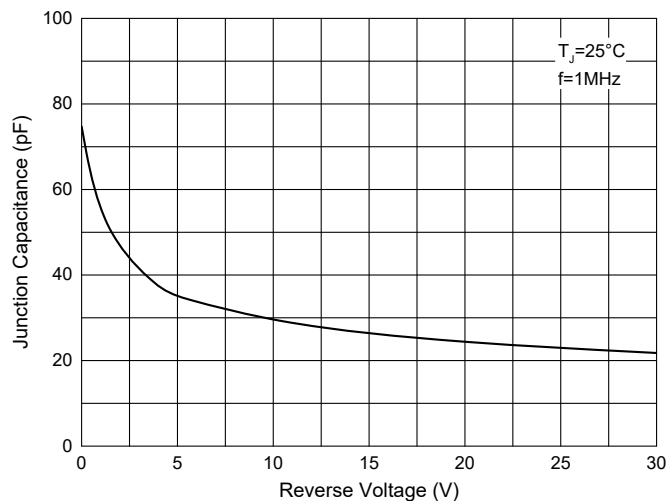


Fig. 5 - Typical Capacitance Characteristics



## Ordering Information

Device	Packing
RKBP410G-BP	Bulk:35pcs/Tube,2.1Kpcs/Box,4.2Kpcs/Carton

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