## **SEMICONDUCTO**

10, 15, 25, 35A FAST RECOVERY BRIDGE RECTIFIER

Data Sheet 1428, Rev. A

**Green Products** 

### **Features**

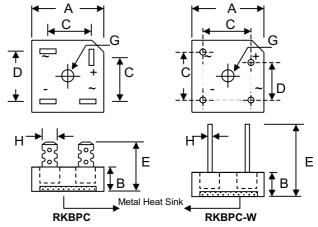
- Diffused Junction
- Low Reverse Leakage Current
- Fast Switching, High Efficiency
- Electrically Isolated Epoxy Case for Maximum Heat Dissipation
- Case to Terminal Isolation Voltage 2500V
- UL Recognized File # E223064
- Green Products in Compliance with the RoHS Directive

## **Mechanical Data**

- Case: Epoxy Case with Heat Sink Internally Mounted in the Bridge Encapsulation
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Symbols Marked on Case
- Mounting: Through Hole for #8 Screw
- Weight: RKBPC 24 grams (approx.)

   RRBC W 24 grams (approx.)
  - RBPC-W 21 grams (approx.)
- Marking: Type Number

"W" Suffix Designates Wire Leads No Suffix Designates Faston Terminals \*All Models are Available on B(Height)=7.62mm Max. Epoxy Case



	RKBPC				RKBPC-W			
Dim	Min	Max	Min	Max	Min	Max	Min	Max
Α	28.40	27.40	1.118	1.079	28.40	27.40	1.118	1.079
В	10.97	11.23	0.432	0.442	10.97	11.23	0.432	0.442
С	15.70	16.70	0.618	0.657	17.10	19.10	0.673	0.752
D	17.50	18.50	0.689	0.728	10.90	11.90	0.429	0.469
Е	22.86	25.40	0.90	1.00	30.50	_	1.201	_
G	Hole for #8 screw, 4.90mm(0.193inch)Ø Normina							
Н	6.35 Typical		0.25 Typical		0.97Ø	1.07Ø	0.038Ø	0.042Ø
	In mm		In inch		In mm		In inch	

## Maximum Ratings and Electrical Characteristics @TA=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristics	Symbol	-00/W-G	-01/W-G	-02/W-G	-04/W-G	-06/W-G	-08/W-G	-10/W-G	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	VRRM VRWM VR	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	700	V
Average Rectifier Output Current @T <sub>C</sub> = 55°C RKBPC15/W -G RKBPC25/W -G RKBPC35/W -G	lo	10 15 25 35						Α	
Non-Repetitive Peak Forward Surge RKPBC10/W -G Current 8.3ms single half sine-wave RKBPC15/W -G Superimposed on rated load RKBPC25/W -G (JEDEC Method) RKBPC35/W -G	IFSM				200 300 300 400				Α
$\begin{array}{c} \text{RKBPC10/W -G @I}_{\text{F}} = 5.0A \\ \text{Forward Voltage Drop} \\ \text{(per element)} \\ \text{RKBPC25/W -G @I}_{\text{F}} = 12.5A \\ \text{RKBPC35/W -G @I}_{\text{F}} = 17.5A \\ \text{RKBPC35/W -G @I}_{\text{F}} = 17.5A \\ \end{array}$		1.3					V		
	lгм				10 500				μA
Reverse Recovery Time (Note 1)	trr		1	50		250	50	00	nS

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Typical Junction Capacitance (per element) (Note 2)	RKBPC10/W -G RKBPC15/W -G RKBPC25/W -G RKBPC35/W -G	Cj	200 200 300 400	pF
Typical Thermal Resistance Juncti to Case (per element) (Note 3)	RKBPC10/W -G on RKBPC15/W -G RKBPC25/W -G RKBPC35/W -G	$R_{ heta}$ JC	6.3 6.3 3.8 3.8	K/W
RMS Isolation Voltage from Case t	to Lead	Viso	2500	V
Operating and Storage Temperature	re Range	Тj, Tsтg	-65 to +125	°C

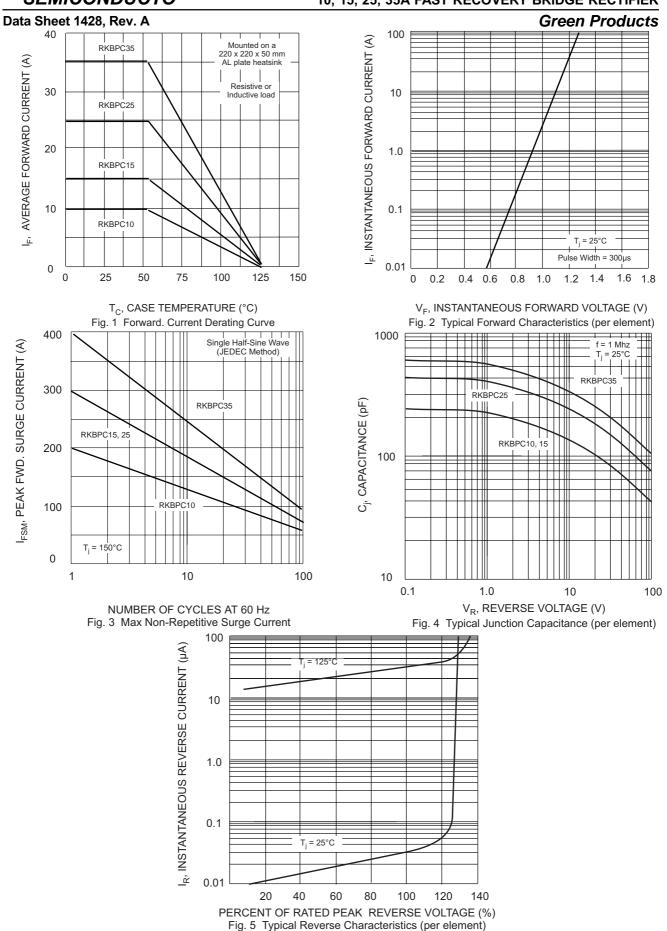
### \*Glass Passivated forms are available upon request.

Note: 1. Measured at  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $I_{RR} = 0.25A$ .

- 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
- 3. Thermal resistance junction to case mounted on heatsink.

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## RKBPC10, 15, 25, 35/W -G

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### **Green Products**

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