
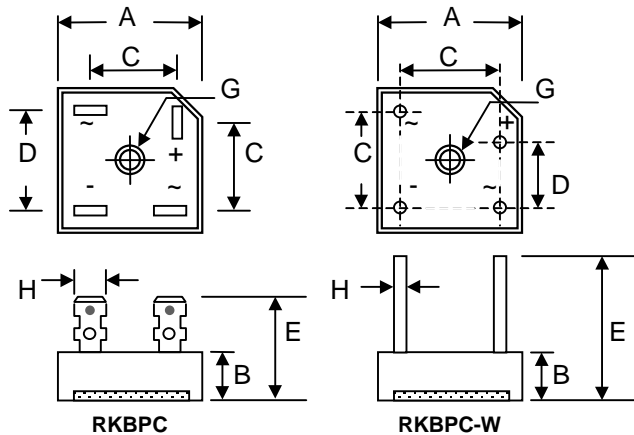


### Features

- Diffused Junction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Electrically Isolated Epoxy Case for Maximum Heat Dissipation
- Case to Terminal Isolation Voltage 2500V
-  Recognized File # E157705

### Mechanical Data

- Case: Molded Plastic with Heatsink, Available in Both Low Profile and Standard Case
- Terminals: Plated Faston Lugs or Wire Leads, Add "W" Suffix to Indicate Wire Leads
- Polarity: As Marked on Case
- Mounting: Through Hole with #10 Screw
- Mounting Torque: 23 cm·kg (20 in·lbs) Max.
- Weight: 21 grams (RKBPC); 18 grams (RKBPC-W)
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 5**



Dim	RKBPC Low Profile / Standard		RKBPC-W Low Profile / Standard	
	Min	Max	Min	Max
A	28.40	28.70	28.40	28.70
B	7.50 / 10.97	8.50 / 11.23	7.50 / 10.97	8.50 / 11.23
C	15.70	16.70	17.10	19.10
D	17.50	18.50	10.90	11.90
E	22.50 / 22.86	23.50 / 25.40	30.50	—
G	Hole for #10 screw, 5.08Ø Nominal			
H	6.35 Typical		0.97Ø	1.07Ø

**All Dimension in mm**

### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

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

Characteristics	Symbol	RKBPC10, 15, 25, 35							Unit
		00	01	02	04	06	08	10	
Peak Repetitive Reverse Voltage	$V_{RRM}$								V
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	1000	
DC Blocking Voltage	$V_R$								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectifier Output Current @ $T_C = 50^\circ\text{C}$	$I_O$				10				A
					15				
					25				A
					35				
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$				200				A
					300				
					300				A
					400				
Forward Voltage Drop per leg	$V_{FM}$				1.3				V
									V
Peak Reverse Current At Rated DC Blocking Voltage	$I_{RM}$				10				$\mu\text{A}$
					500				
Reverse Recovery Time (Note 1)	$t_{rr}$		150			250	500		nS

## Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

I <sup>2</sup> t Rating for Fusing (t < 8.3ms)	RKBPC10 RKBPC15 RKBPC25 RKBPC35	I <sup>2</sup> t	166 373 373 664	A <sup>2</sup> s
Typical Junction Capacitance per leg (Note 2)	RKBPC10 RKBPC15 RKBPC25 RKBPC35	C <sub>j</sub>	200 200 300 400	pF
Typical Thermal Resistance per leg (Note 3)	RKBPC10 RKBPC15 RKBPC25 RKBPC35	R <sub>θJC</sub>	3.0 2.6 2.6 2.1	°C/W
RMS Isolation Voltage from Case to Lead		V <sub>iso</sub>	2500	V
Operating and Storage Temperature Range		T <sub>j</sub> , T <sub>STG</sub>	-65 to +125	°C

- Note: 1. Measured at I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>RR</sub> = 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.

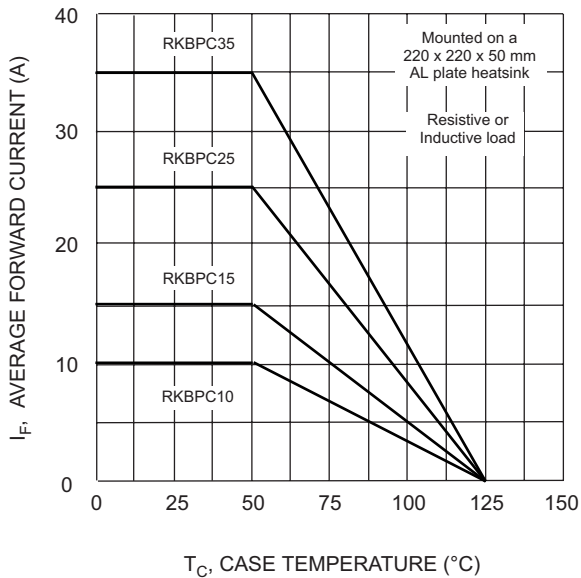


Fig. 1 Forward Current Derating Curve

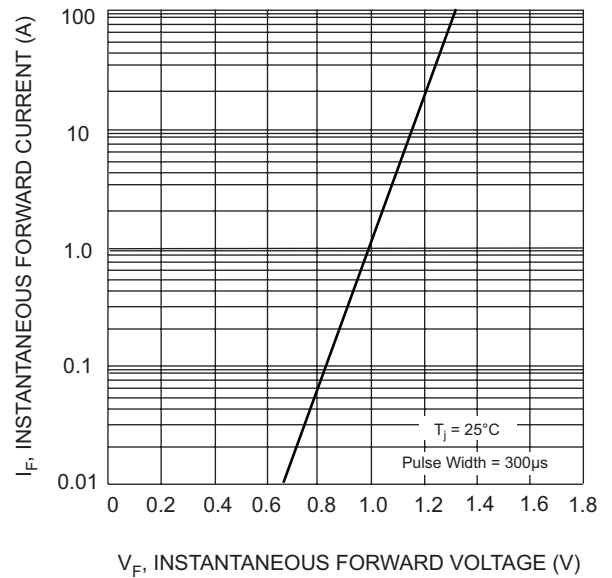


Fig. 2 Typical Forward Characteristics (per element)

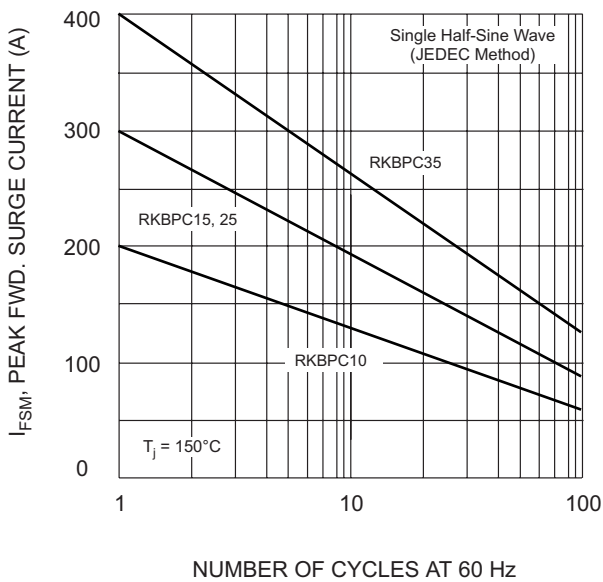


Fig. 3 Max Non-Repetitive Surge Current

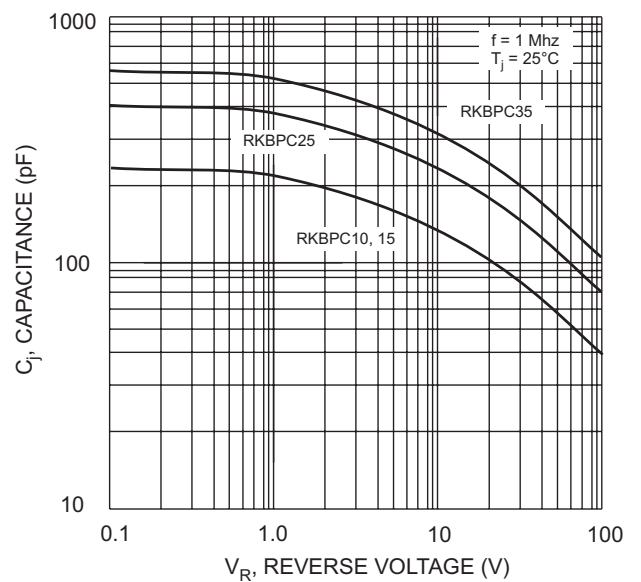


Fig. 4 Typical Junction Capacitance (per element)

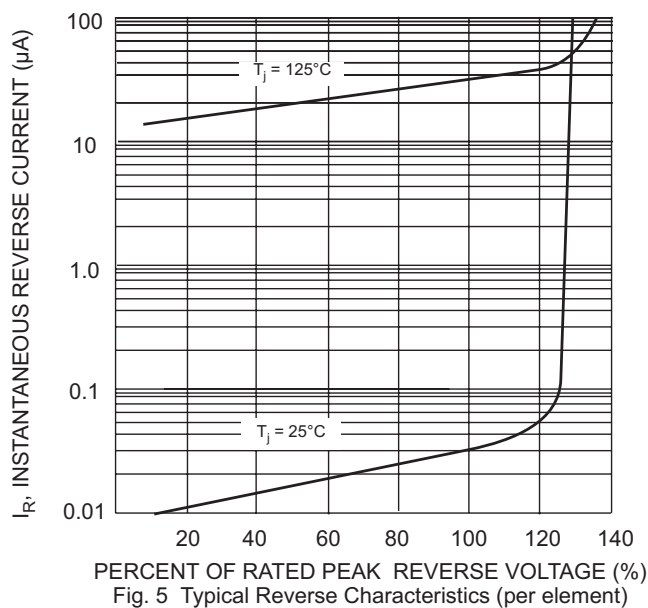
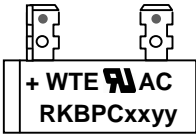
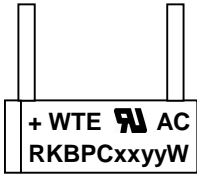


Fig. 5 Typical Reverse Characteristics (per element)

## MARKING INFORMATION

RKBPC		RKBPC-W	
			
WTE	= Manufacturer's Logo	WTE	= Manufacturer's Logo
RKBPCxxyy	= Device Number	RKBPCxxyyW	= Device Number
xx	= 10, 15, 25 or 35	xx	= 10, 15, 25 or 35
yy	= 00, 01, 02, 04, 06, 08 or 10	yy	= 00, 01, 02, 04, 06, 08 or 10
Polarity	= As Marked on Body	Polarity	= As Marked on Body

## PACKAGING INFORMATION

BULK					
Case Style	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
<b>RKBPC</b>	195 x 195 x 40	50	405 x 205 x 240	500	12.0
<b>RKBPC-W</b>	195 x 195 x 40	50	405 x 205 x 240	500	11.0

**Note:** 1. Paper box, white or brown color.

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
RKBPCxx00	Square Bridge	50 Units/Box
RKBPCxx00W	Square Bridge	50 Units/Box
RKBPCxx01	Square Bridge	50 Units/Box
RKBPCxx01W	Square Bridge	50 Units/Box
RKBPCxx02	Square Bridge	50 Units/Box
RKBPCxx02W	Square Bridge	50 Units/Box
RKBPCxx04	Square Bridge	50 Units/Box
RKBPCxx04W	Square Bridge	50 Units/Box
RKBPCxx06	Square Bridge	50 Units/Box
RKBPCxx06W	Square Bridge	50 Units/Box
RKBPCxx08	Square Bridge	50 Units/Box
RKBPCxx08W	Square Bridge	50 Units/Box
RKBPCxx10	Square Bridge	50 Units/Box
RKBPCxx10W	Square Bridge	50 Units/Box

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, RKBPC1000-LF.**

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**WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT.** WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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