

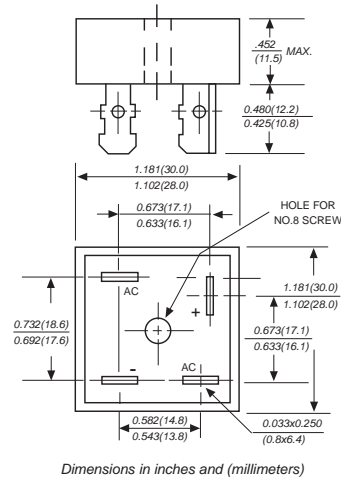
# KBPC15, 25, 35 SERIES

## Features

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

## Mechanical Data

- Case: Metal Case with Electrically Isolated Epoxy
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Symbols Marked on Case
- Mounting: Through Hole for #10 Screw
- Weight: KBPC 31.6 grams (approx.)
- Marking: Type Number



## 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	-00	-01	-02	-04	-06	-08	-10	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$								
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	1000	V
DC Blocking Voltage	$V_R$								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectifier Output Current @ $T_C = 60^{\circ}\text{C}$	$I_O$				15	25			A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$				300	400			A
		KBPC15							
		KBPC25				400			
Forward Voltage Drop (per element)	$V_{FM}$				1.2				V
Peak Reverse Current At Rated DC Blocking Voltage	$I_{RM}$	@ $T_C = 25^{\circ}\text{C}$				10			$\mu\text{A}$
		@ $T_C = 125^{\circ}\text{C}$				1.0			mA
$I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ ) (Note 1)	$I^2t$	KBPC15				373			$\text{A}^2\text{s}$
		KBPC25				373			
		KBPC35				664			

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

Typical Junction Capacitance (per element) (Note 2)	$C_j$	300	pF
Typical Thermal Resistance Junction to Case (per element) (Note 3)	$R_{\theta JC}$	KBPC15: 6.3 KBPC25: 3.8 KBPC35: 2.7	K/W
RMS Isolation Voltage from Case to Lead	Viso	2500	V
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +150	$^\circ\text{C}$

\* Glass passivated forms are available upon request.

- Note: 1. Measured at non-repetitive, for  $t > 1\text{ms}$  and  $< 8.3\text{ms}$ .  
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
 3. Thermal resistance junction to case mounted on heatsink.

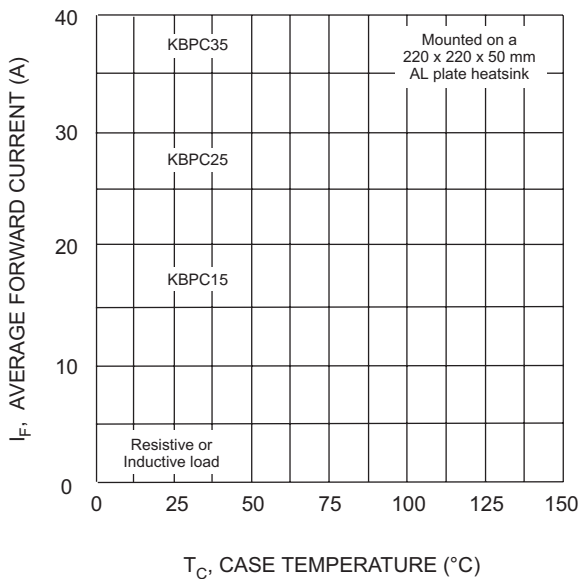


Fig. 1 Forward Current Derating Curve

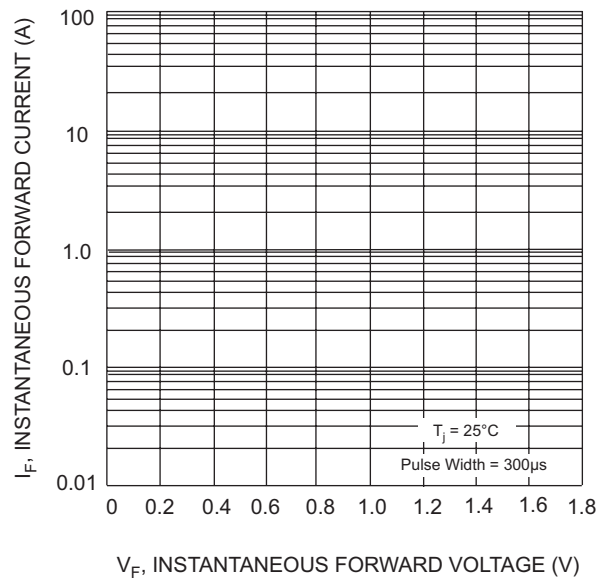


Fig. 2 Typical Forward Characteristics (per element)

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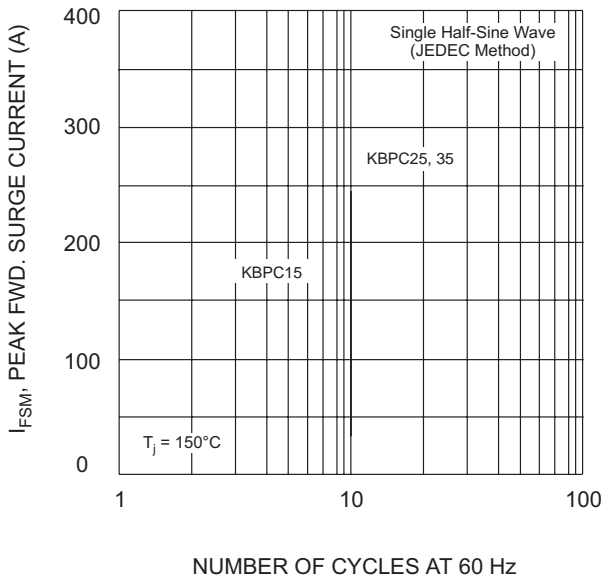


Fig. 3 Max Non-Repetitive Surge Current

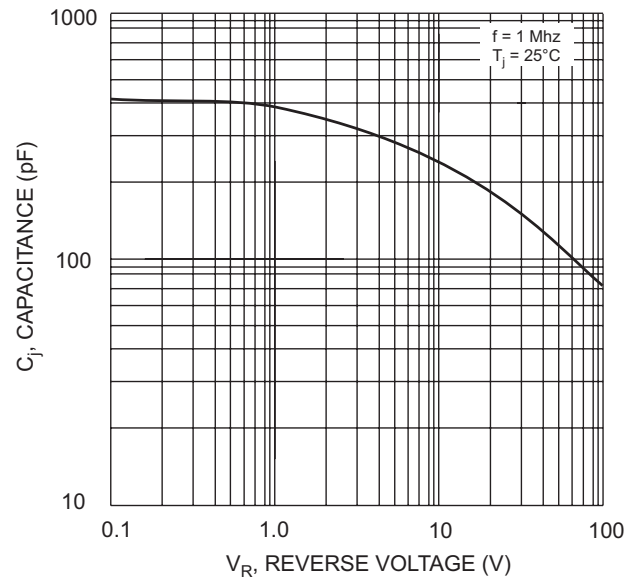


Fig. 4 Typical Junction Capacitance (per element)

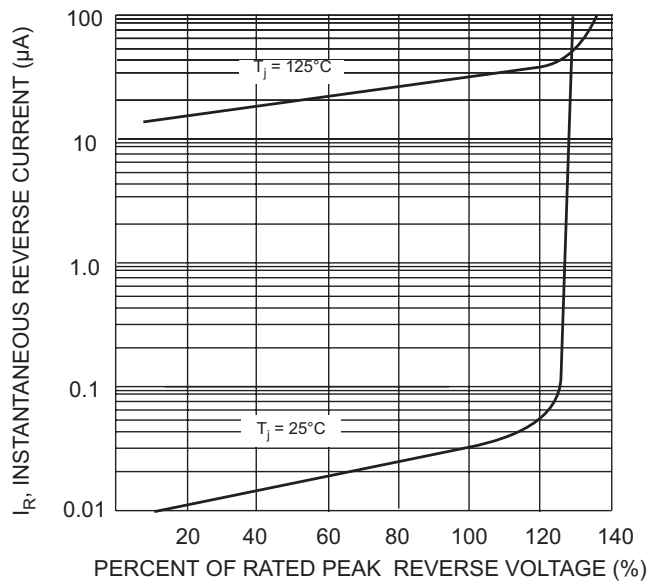


Fig. 5 Typical Reverse Characteristics (per element)