

Data sheet 1299 Rev.A

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
- UL Recognized File # E223064

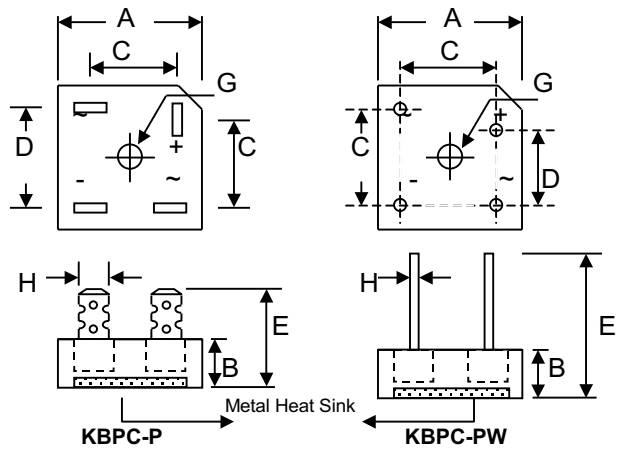
Mechanical Data

- 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: KBPC-P 24 grams (approx.)
KBPC-PW 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



Dim	KBPC-P				KBPC-PW			
	Min	Max	Min	Max	Min	Max	Min	Max
A	28.40	28.70	1.118	1.130	28.40	28.70	1.118	1.130
B	10.97	11.23	0.432	0.442	10.97	11.23	0.432	0.442
C	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
E	22.86	25.40	0.90	1.00	30.50	—	1.201	—
G	Hole for #8 screw, 4.90mm(0.193inch)ØNormina							
H	6.35 Typical	0.25 Typical	0.97Ø	1.07Ø	0.038Ø	0.042Ø		
	In mm	In mm	In mm	In mm	In mm	In mm	In mm	In mm

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

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

Characteristics	Symbol	-00P/W	-01P/W	-02P/W	-04P/W	-06P/W	-08P/W	-10P/W	Unit
Peak Repetitive Reverse Voltage	V _{RRM}								V
Working Peak Reverse Voltage	V _{VRM}	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 = 60°C	I _o				15 25 35				A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave Superimposed on rated load (JEDEC Method)	I _{FSM}				300 300 400				A
Forward Voltage Drop (per element)	V _{FM}				1.1				V
Peak Reverse Current At Rated DC Blocking Voltage	I _{RM}				10 0.5				µA mA
I ² t Rating for Fusing (t < 8.3ms) (Note 1)	I ² t				373 373 664				A ² s

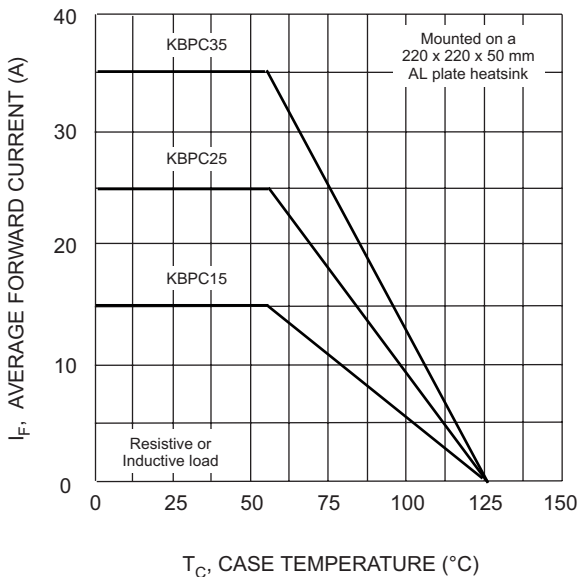
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Maximum Ratings and Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

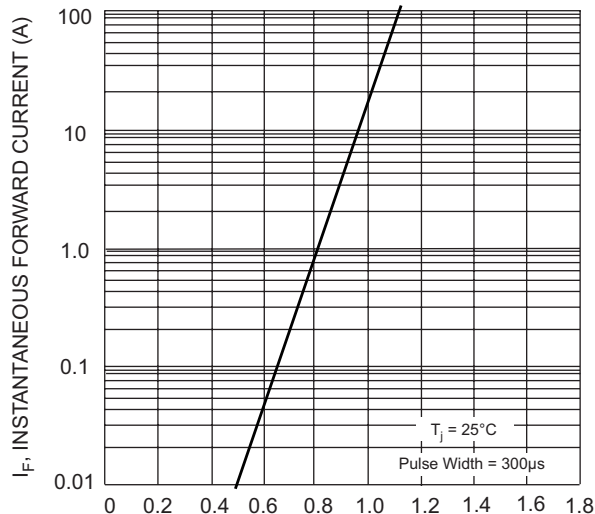
Typical Junction Capacitance (per element) (Note 2)	KBPC15 KBPC25 KBPC35	C_j	200 300 400	pF
Typical Thermal Resistance Junction to Case (per element) (Note 3)	KBPC15 KBPC25 KBPC35	$R_{\theta JC}$	6.3 3.8 3.8	K/W
RMS Isolation Voltage from Case to Lead		Viso	2500	V
Operating and Storage Temperature Range		T_j, T_{STG}	-65 to +125	$^{\circ}\text{C}$

- 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.

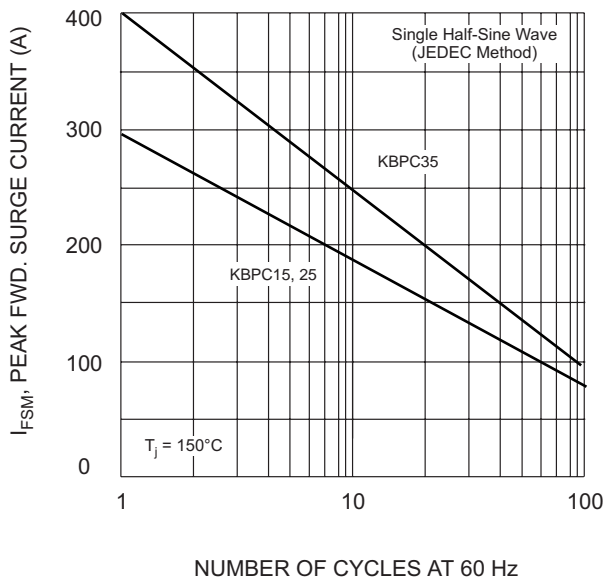
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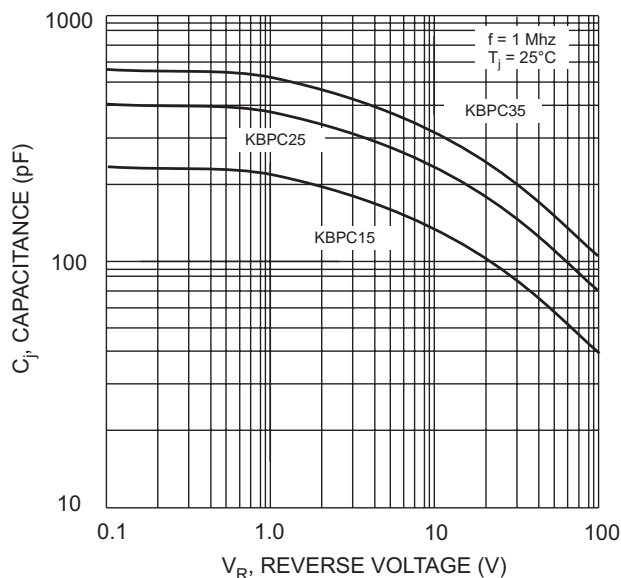
T_C , CASE TEMPERATURE ($^{\circ}C$)
Fig. 1 Forward Current Derating Curve



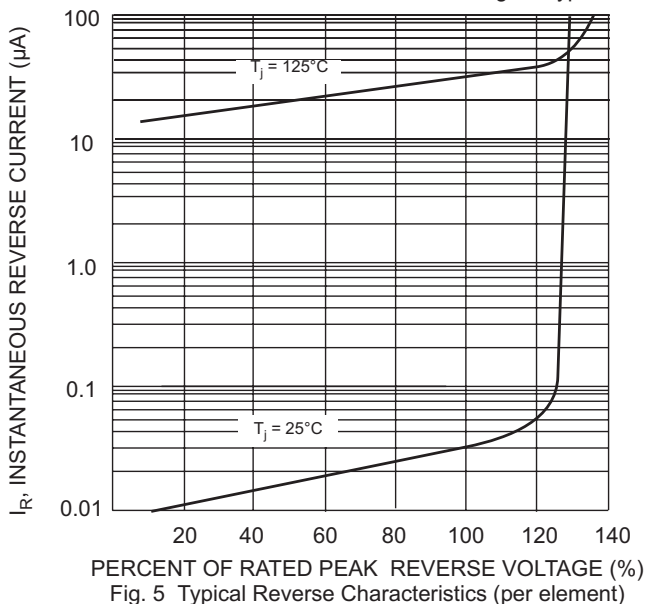
V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics (per element)



NUMBER OF CYCLES AT 60 Hz
Fig. 3 Max Non-Repetitive Surge Current



V_R , REVERSE VOLTAGE (V)
Fig. 4 Typical Junction Capacitance (per element)



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)
Fig. 5 Typical Reverse Characteristics (per element)