

Single Phase Diode Bridge KBPC35, KBPC35-W



Key Parameters

I_O	=	35	A
V_{RRM}	=	50 - 1600	V
$V_{R(RMS)}$	=	35 - 1120	V
I_{FSM}	=	400	A
I^2t	=	664	mΩ

Properties

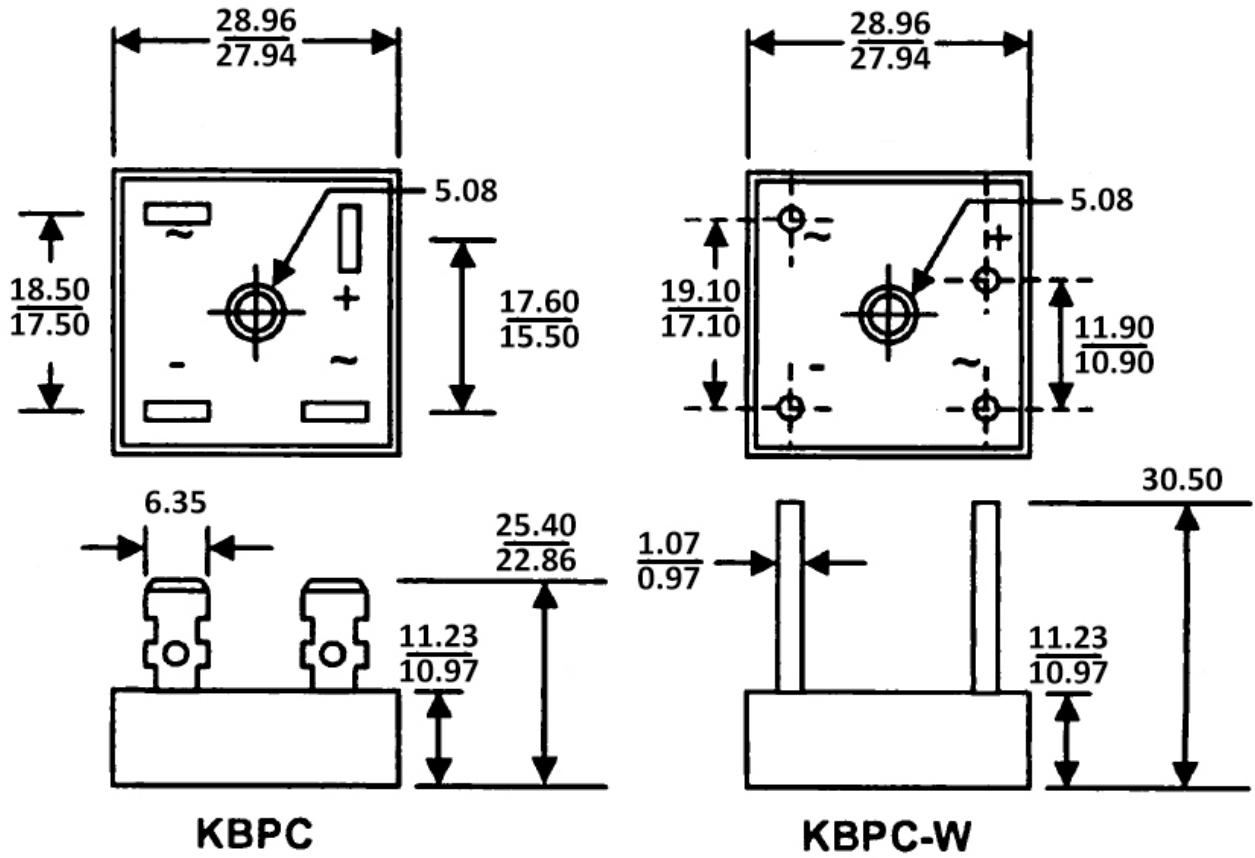
- Compact construction
- High surge current capability
- Low reverse leakage current
- Low power loss, high efficiency

*"W" in marking indicate case with wire leads

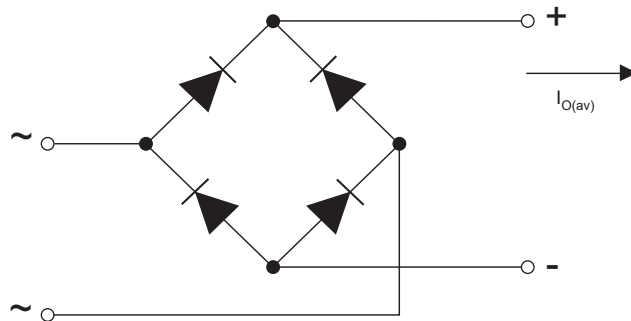
MAXIMUM ALLOWABLE RATINGS AND ELECTRICAL CHARACTERISTICS

Symbols, parameters and values												Unit
V_{RRM}	Repetitive peak reverse voltage	50	100	200	400	600	800	1000	1200	1400	1600	V
$V_{R(RMS)}$	RMS reverse voltage	35	70	140	280	420	560	700	840	980	1120	V
I_O	Average rectified output current	$T_C = 60\text{ °C}$									35	A
I_{FSM}	Non repetitive peak forward surge current	$t_P = 8.3\text{ ms}$ $T_C = 25\text{ °C}$									400	A
V_{FM}	Forward voltage per leg	$I_F = 17.5\text{ A}$ $T_C = 25\text{ °C}$									1.2	V
I_{RM}	Peak reverse current At rated DC blocking Voltage	$T_C = 25\text{ °C}$ $T_C = 125\text{ °C}$									10 1.0	μA mA
I^2t	I^2t rating for fusing	$t_P = 8.3\text{ ms}$ $T_C = 25\text{ °C}$									664	A ² s
C_j	Typical junction capacitance	$T_C = 25\text{ °C}$									300	pF
$R_{th(jc)}$	Typical thermal resistance per leg	$T_C = 25\text{ °C}$									2.1	°C/W
V_{ISOL}	RMS isolation voltage from case to leads	$T_C = 25\text{ °C}$									2500	V
T_j, T_{STG}	Operation and storage temperature range										-65...+150	°C

DIMENSIONS



TOPOLOGY OF INTERNAL CONNECTION



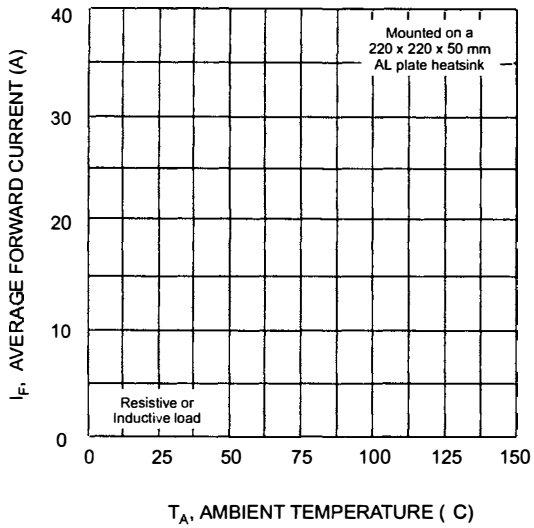


Fig. 1 Forward Current Derating Curve

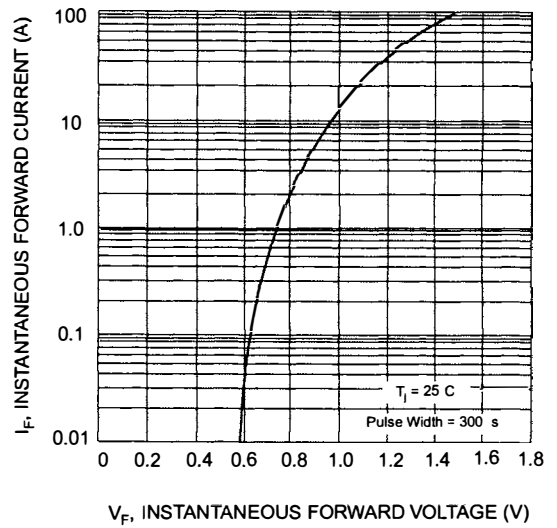


Fig. 2 Typical Forward Characteristics (per element)

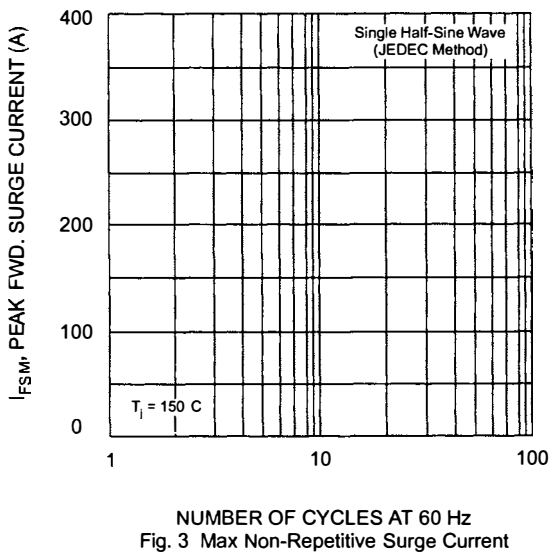


Fig. 3 Max Non-Repetitive Surge Current

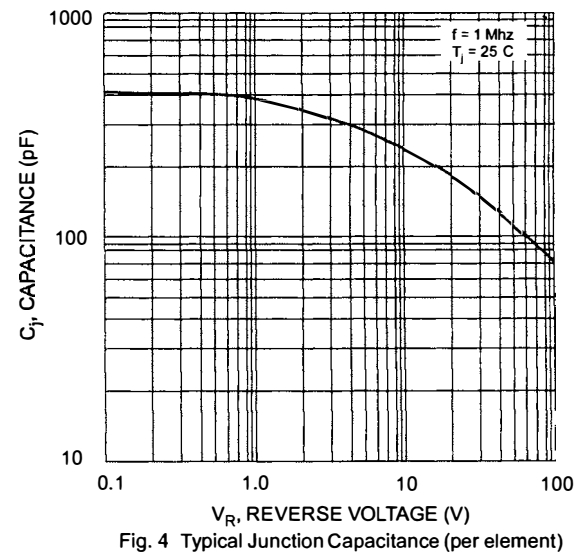


Fig. 4 Typical Junction Capacitance (per element)

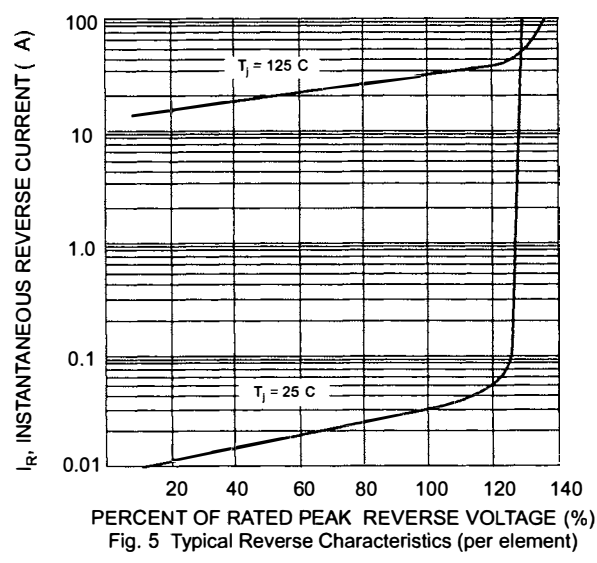


Fig. 5 Typical Reverse Characteristics (per element)