invac

VOLTAGE RANGE
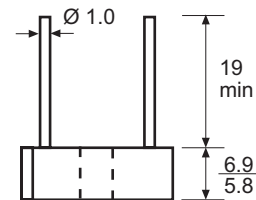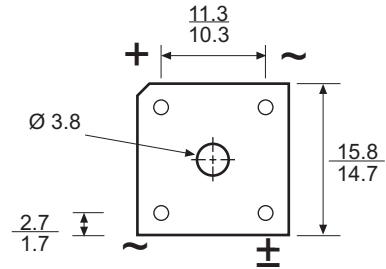50 to 1000 Volts
CURRENT
6.0 Amperes

FEATURES

- *Plastic material has Underwriters Laboratory flammability classification 94V-0.*
- *Low leakage.*
- *Surge overload rating - 125 amperes peak.*
- *Ideal for printed circuit boards.*
- *Exceeds environmental standards of MIL - STD - 19500.*

MECHANICAL DATA

Case : Reliable low cost construction utilizing moulded plastic technique results in inexpensive product.

Terminals : Leads, solderable per MIL - STD - 202, Method 208.

Polarity : Polarity symbols printed on body.

Weight : 0.13 ounce, 3.8 grams.

11.3 / 10.3

Ø 3.8

15.8 / 14.7

2.7 / 1.7

Ø 1.0

19 min

6.9 / 5.8

Dimensions in millimetres

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

		KBPC6005	KBPC601	KBPC602	KBPC604	KBPC606	KBPC608	KBPC610	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum Bridge Input Voltage RMS	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current at T_C = 50°C* (see Fig 2) T_A = 50°C**	$I_{F(AV)}$				6.0 4.0				A
Peak Forward Surge Current, 8.3 ms single half sine - wave superimposed on rated load (see Fig 1)	I_{FSM}				125				A
Maximum Forward Voltage Drop per Element at 3.0A DC (see Fig 3)	V_F				1.1				V
Maximum Reverse Current at Rated DC T_A = 25°C Blocking Voltage per Element (see Fig 4) T_A = 100°C	I_R				10.0 1.0				μA
Maximum Thermal Resistance	$R_{\theta JC}$				5.0				°C/W
Operating Temperature Range	T_J				- 55 to + 125				°C
Storage Temperature Range	T_{STG}				- 55 to + 150				°C

Notes * Unit mounted on metal heatsink.
    ** Unit mounted on P.C board.

RATING AND CHARACTERISTIC CURVES
KBPC600 SERIES

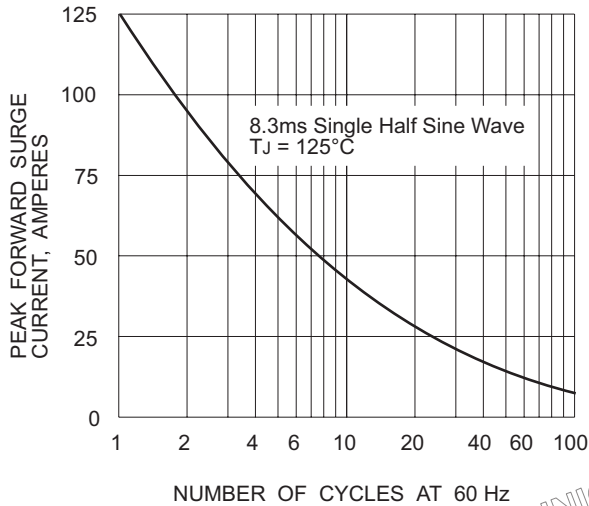### FIG 1 : MAXIMUM NON-REPETITIVE SURGE CURRENT PER ELEMENT

PEAK FORWARD SURGE CURRENT, AMPERES

8.3ms Single Half Sine Wave
$T_J = 125°C$

NUMBER OF CYCLES AT 60 Hz

FIG 2 : DERATING CURVE FOR RECTIFIED OUTPUT CURRENT

AVERAGE FORWARD OUTPUT CURRENT, AMPERES

CASE

AMBIENT

TEMPERATURE °C
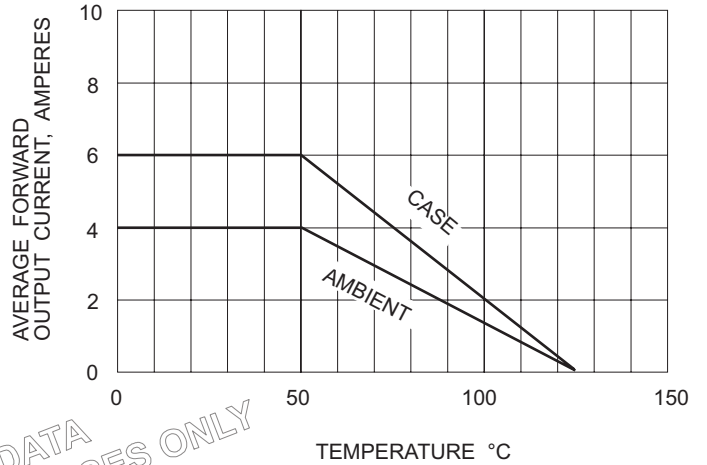
FIG 3 : TYPICAL FORWARD CHARACTERISTICS PER ELEMENT

INSTANTANEOUS FORWARD CURRENT, AMPERES

$T_J = 25°C$
Pulse Width = 300µs

INSTANTANEOUS FORWARD VOLTAGE, VOLTS
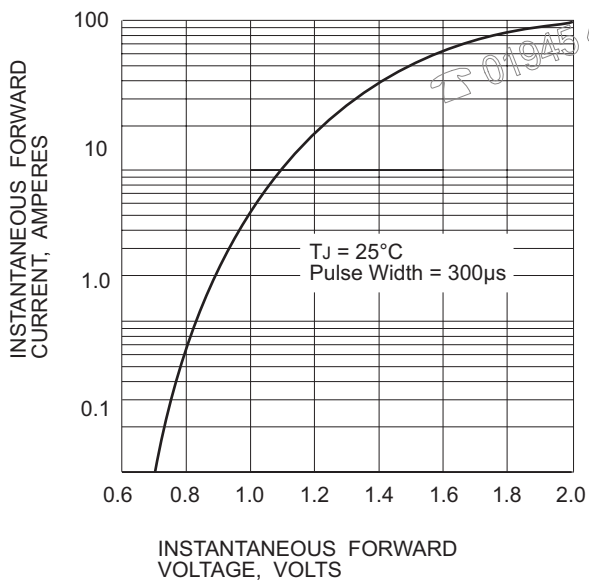
FIG 4 : TYPICAL REVERSE CHARACTERISTICS PER ELEMENT

INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

$T_J = 125°C$

$T_J = 25°C$

PERCENT OF RATED PEAK REVERSE VOLTAGE