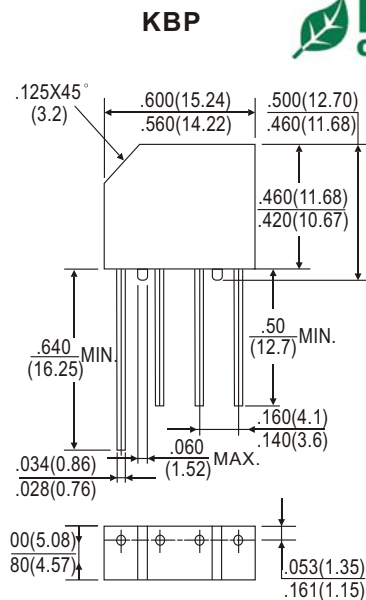




KBP3005 - KBP310 Bridge Rectifiers

Features

- ☐ Surge overload rating-80 amperes peak
- ☐ Ideal for printed circuit board
- ☐ Plastic material has Underwriters Laboratory
- ☐ Flammability Classification 94V-O
- ☐ Mounting position: Any
- ☐ Lead: Silver Plated Cooper Lead.



Dimensions in inches and (millimeters)

Absolute Maximum Ratings * $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value							Units
		KBP3005	KBP301	KBP302	KBP304	KBP306	KBP308	KBP310	
V_{RRM}	Maximum Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
V_{RMS}	Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
V_R	DC Reverse Voltage (Rated V_R)	50	100	200	400	600	800	1000	V
$I_{F(AV)}$	Average Rectified Forward Current @ $T_A = 40^\circ\text{C}$	3							A
I_{FSM}	Non-Repetitive Peak Forward Surge Current 8.3ms Single Half-Sine-Wave	80							A
T_{STG}	Storage Temperature Range	-55 to +150							$^\circ\text{C}$
T_J	Operating Junction Temperature	-55 to +150							$^\circ\text{C}$

* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Thermal Characteristics

Symbol	Parameter	Value	Units
P_D	Power Dissipation	3.1	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient, * per leg	40	$^\circ\text{C/W}$

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_F	Forward Voltage, per element @ 3.0A	1.1	V
I_R	Reverse Current, per element @ rated V_R $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$	5.0 500	μA μA
	I^2t Rating for Fusing $t < 8.35\text{ms}$	10	A^2s
C_T	Total Capacitance, per leg $V_R = 4.0\text{V}$, $f = 1.0\text{MHz}$	25	pF

Typical Characteristics

Fig. 1 - DERATING CURVE FOR
OUTPUT RECTIFIED CURRENT

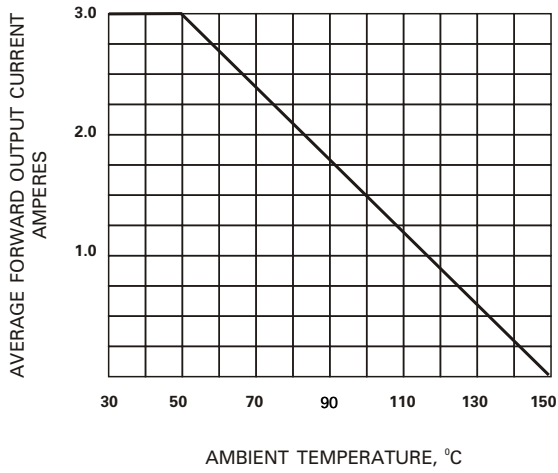


Fig. 2 - DERATING CURVE FOR
OUTPUT RECTIFIED CURRENT

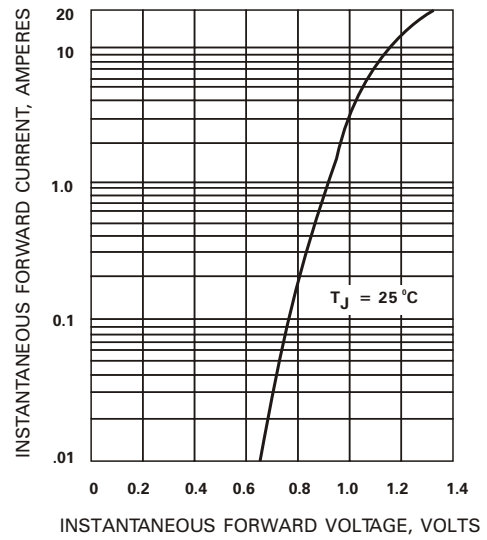


Fig. 3 - TYPICAL FORWARD
CHARACTERISTICS

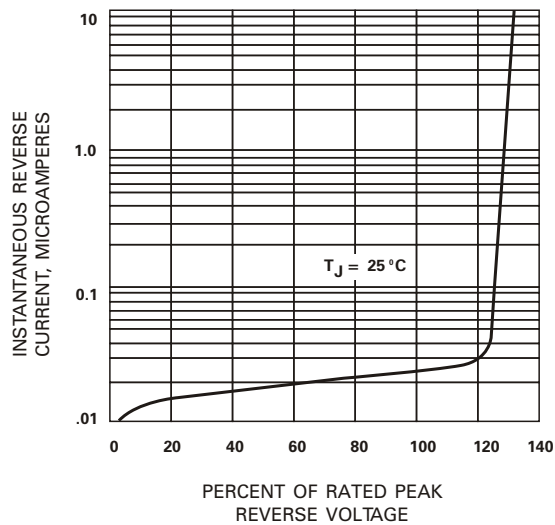


Fig. 4 - MAXIMUM FORWARD SURGE CURRENT

