



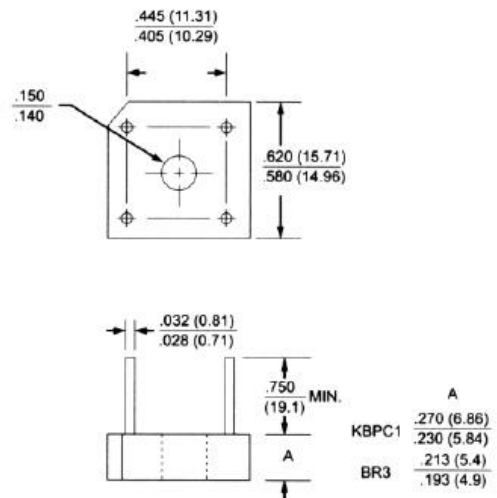
KBPC1 / BR3 Series

SYNSEMI SEMICONDUCTOR

Glass Passivated Single-Phase Bridge Rectifiers
Voltage Range 50 to 1000 Volts Forward Current 3.0 Amperes

Features

- ◆ Surge overload rating - 50 Amperes peak
- ◆ Low forward voltage drop
- ◆ Small size, simple installation
- ◆ Tinned copper leads
- ◆ Mounting Position: Any
- ◆ Mounting: Thru hole for #6 screw



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating 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%

Parameter	Symbols	BR305	BR31	BR32	BR34	BR36	BR38	BR310	Units
		KBPC105	KBPC101	KBPC102	KBPC104	KBPC106	KBPC108	KBPC110	
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified output current at $T_c=50^\circ\text{C}$ (Note 1) $T_c=50^\circ\text{C}$ (Note 1) $T_a=50^\circ\text{C}$	$I_{F(AV)}$	3.0 2.0 2.0						Amps	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50.0						Amps	
Max. instantaneous forward voltage drop per element at 1.5A	V_F	1.1						Volts	
Maximum DC reverse current at rated DC blocking voltage per element $T_a=25^\circ\text{C}$ $T_a=100^\circ\text{C}$	I_R	10.0 1.0						μA mA	
Operating temperature range	T_J	-55 to +125						$^\circ\text{C}$	
Storage temperature range	T_{STG}	-55 to +150						$^\circ\text{C}$	

- Notes:**
1. Unit mounted on metal chassis
 2. Unit mounted on P.C. board

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RATINGS AND CHARACTERISTIC CURVES

($T_A = 25^\circ\text{C}$ unless otherwise noted)

FIG. 1 - MAXIMUM FORWARD SURGE CURRENT

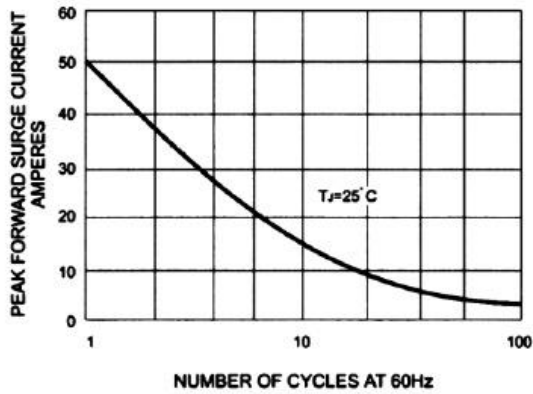


FIG. 2 - DERATING CURVE
OUTPUT RECTIFIED CURRENT

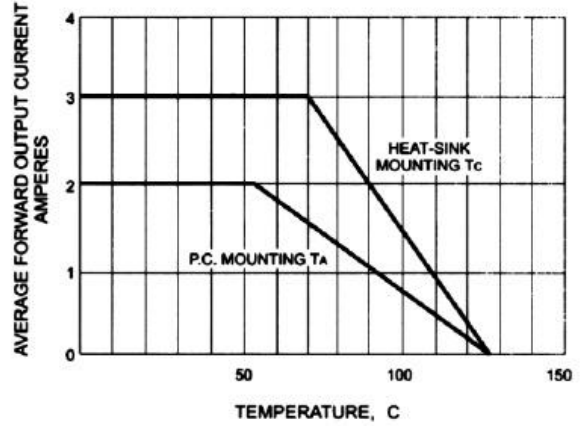


FIG. 3 - TYPICAL FORWARD
CHARACTERISTICS

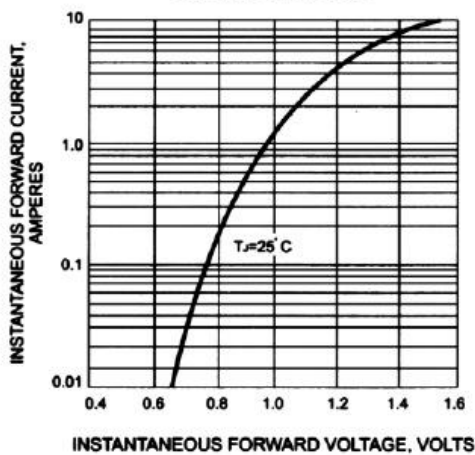


FIG. 4 - TYPICAL REVERSE
CHARACTERISTICS

