

10 A Single-Phase Silicon Bridge Rectifier

Rectifier Reverse Voltage 50 to 1000V

Features

- This series is UL listed under the Recognized Component Index, file number E142814
- High temperature metallurgically bonded internal rectifiers
- Typical I_R less than $.1\mu A$
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- High temperature soldering guaranteed $265^\circ C/10$ seconds at 5 lbs (2.3kg) tension

Mechanical Data

Case: Voil-free plastic package

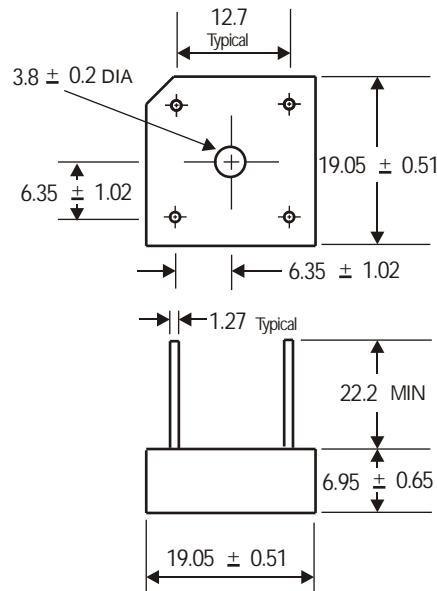
Terminals: Plated leads solderable per MIL-STD-202, Method 208

Mounting: Thru hole for #6 screw

Mounting position: Any

Weight: 0.24 ounce, 6.9 grams (approx)

Marking:KBPC10005-KBPC1010



Dimensions in millimeters (1mm=0.0394")

Maximum Ratings & Thermal Characteristics

Rating at $25^\circ C$ ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
For Capacitive load derate current by 20%.

Parameter	Symbol	KBPC 10005	KBPC 1001	KBPC 1002	KBPC 1004	KBPC 1006	KBPC 1008	KBPC 1010	unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current $T_c = 50^\circ C$ (1)	IF(AV)					10			A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM					150			A
Rating for fusing ($t < 8.3ms$)	$I^2 t$				10				$A^2 sec$
Typical thermal resistance per element (2)	ReJA				9.4				$^\circ C / W$
Typical junction capacitance per element(3)	C _j				55				pF
Operating junction and storage temperature range	T _J , T _{TSG}				-55 to + 150				$^\circ C$

Electrical Characteristics

Rating at $25^\circ C$ ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
For Capacitive load derate by 20 %.

Parameter	Symbol	KBPC 10005	KBPC 1001	KBPC 1002	KBPC 1004	KBPC 1006	KBPC 1008	KBPC 1010	Unit
Maximum instantaneous forward voltage drop per leg at 5.0A	VF				1.1				V
Maximum DC reverse current at rated $T_A = 25^\circ C$ DC blocking voltage per element $T_A = 100^\circ C$	IR				10	1000			μA

Notes: (1) Mounted on metal chassis.

(2) Non-repetitive, for $t > 1ms$ and $< 8.3ms$.

(3) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

10 A Single-Phase Silicon Bridge Rectifier

Rating and Characteristic Curves (TA=25[°]C Unless otherwise noted)

Fig. 1 Derating Curve for Output Rectified Current

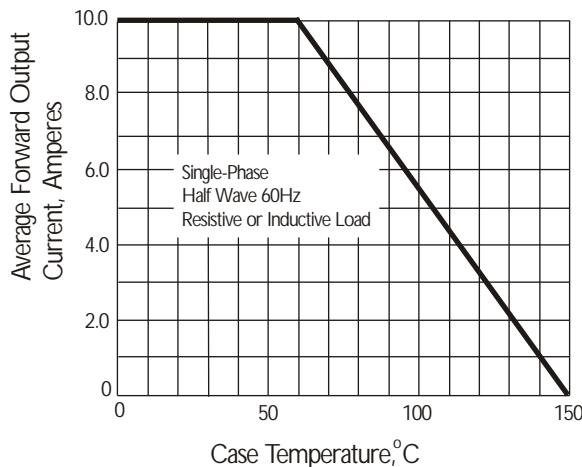


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

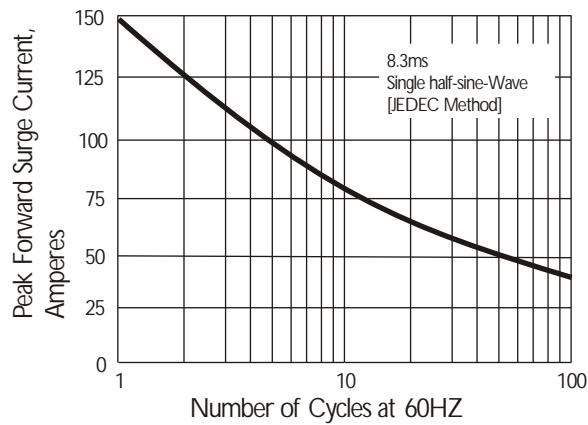


Fig. 3 Typical Instantaneous Forward Characteristics

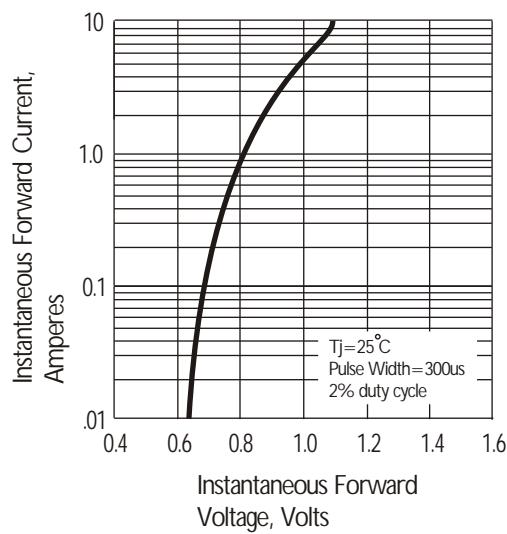


Fig. 4 Typical Reverse Characteristics

