

KBPC15005 thru KBPC1510

15.0 A Single-Phase Silicon Bridge Rectifier

Rectifier Reverse Voltage 50 to 1000V

Features

- Surge overload ratings to 300 amperes
- This series is UL listed under the Recognized Component Index, file number E142814
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Universal 4-way terminals, snap-on, wrap-around, solder or P.C. Board mounting
- High temperature soldering guaranteed 265°C/10 seconds at 5 lbs (2.3kg) tension

Mechanical Data

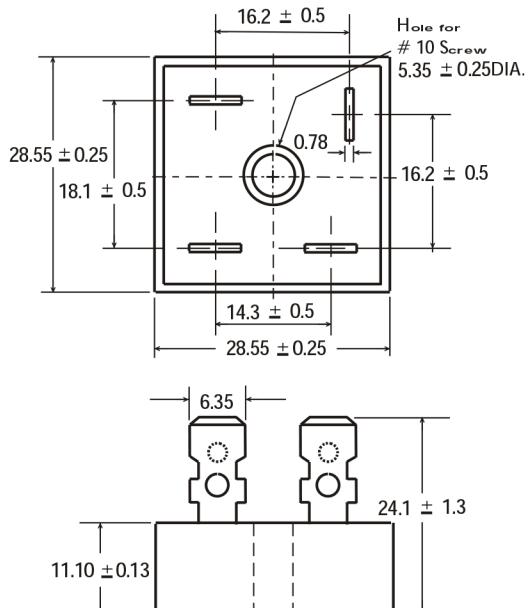
Case: Metal case

Terminals: Plated .25" (6.53mm) Faston

Mounting Position: Bolt down on heat-sink with silicone thermal compound between bridges and mounting surface for maximum heat transfer efficiency

Mounting Position: Any

Weight: 0.706 ounce, 20 grams (approx)



Dimensions in millimeters (1mm=0.0394")

Maximum Ratings & Thermal Characteristics

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

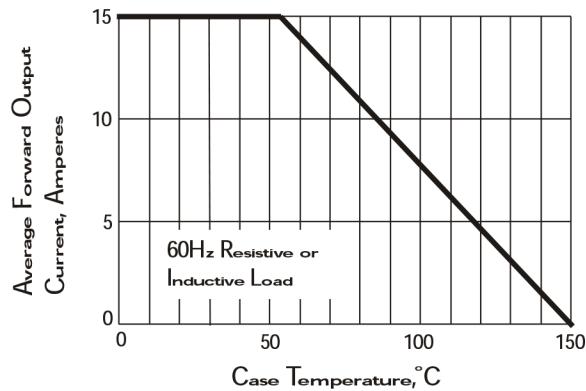
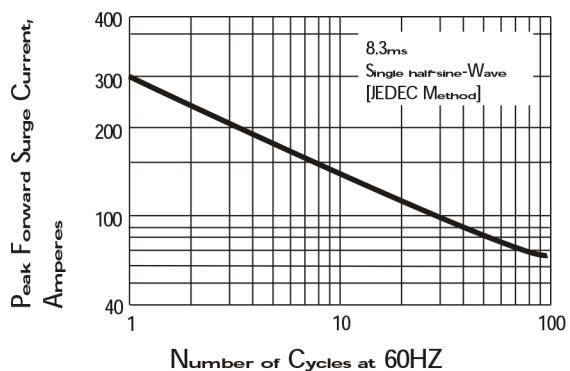
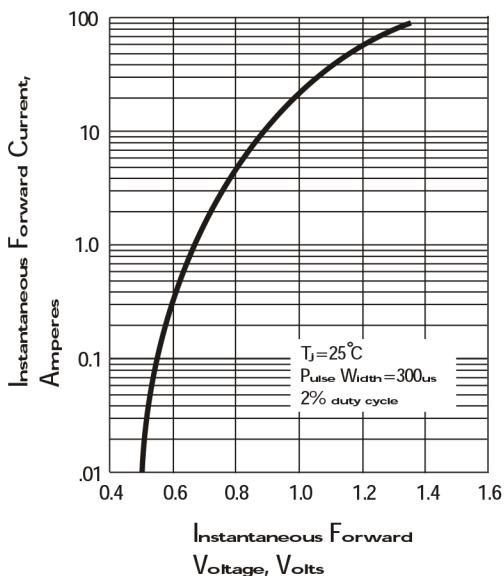
Parameter	Symbol	KBPC 15005	KBPC 1501	KBPC 1502	KBPC 1504	KBPC 1506	KBPC 1508	KBPC 1510	unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current at TA=55°C	IF(AV)				15				A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM				300				A
Rating for fusing (t<8.3ms)	I ² t				374				A ² sec
Typical thermal resistance per element(1)	ReJA				2.1				°C/W
Isolation voltage from case to leads					2500				Vac
Operating junction and storage temperature range	TJ, TSTG				-55 to + 150				°C

Electrical Characteristics

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

Parameter	Symbol	KBPC 15005	KBPC 1501	KBPC 1502	KBPC 1504	KBPC 1506	KBPC 1508	KBPC 1510	Unit
Maximum instantaneous forward voltage drop per leg at 7.5A	VF				1.0				V
Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA =125°C	IR				10 500				μA

Notes: (1)Thermal resistance from Junction to Ambient on P.C.board mounting.

Rating and Characteristic Curves (TA=25°C U_nless 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 at T_j=25°C
