

**35.0 A Single-Phase Silicon Bridge Rectifier**  
 Rectifier Reverse Voltage 50 to 1000V

## Features

- Surge overload ratings to 400 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

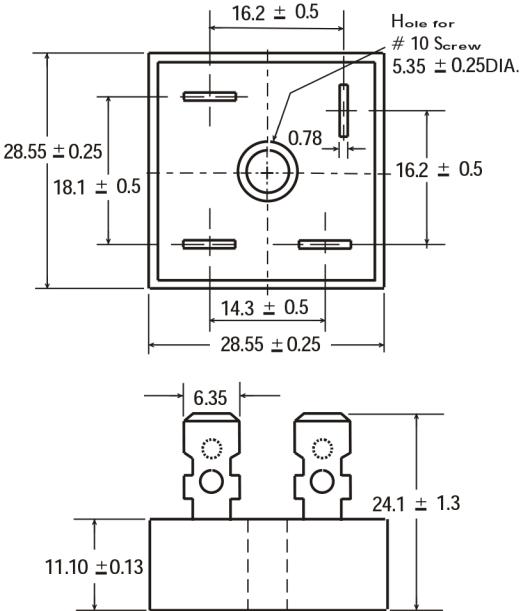
Case: Metal case

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 35005	KBPC 3501	KBPC 3502	KBPC 3504	KBPC 3506	KBPC 3508	KBPC 3510	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)				35				A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM				400				A
Rating for fusing ( t<8.3ms )	I <sup>2</sup> t				664				A <sup>2</sup> 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

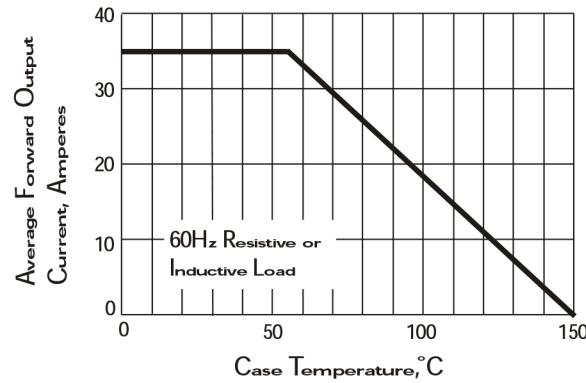
Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.  
 For Capacitive load derate by 20 %.

Parameter	Symbol	KBPC 35005	KBPC 3501	KBPC 3502	KBPC 3504	KBPC 3506	KBPC 3508	KBPC 3510	Unit
Maximum instantaneous forward voltage drop per leg at 17.5A	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

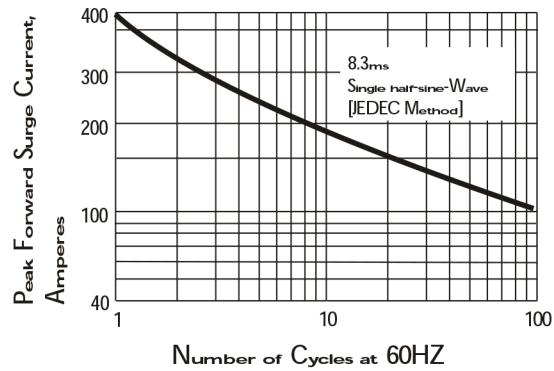
Notes: (1)Thermal resistance from Junction to Ambient on P.C.board mounting.

## Rating and Characteristic Curves ( TA=25°C U<sub>n</sub>less otherwise noted )

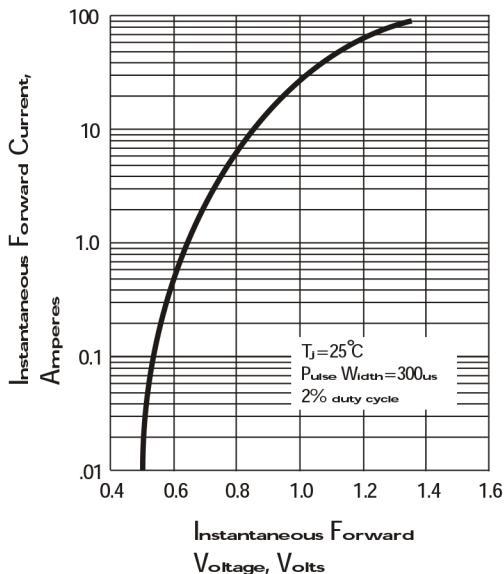
**Fig. 1 Derating Curve for Output Rectified Current**



**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 4 Typical Reverse Characteristics at  $T_J=25^\circ\text{C}$**

