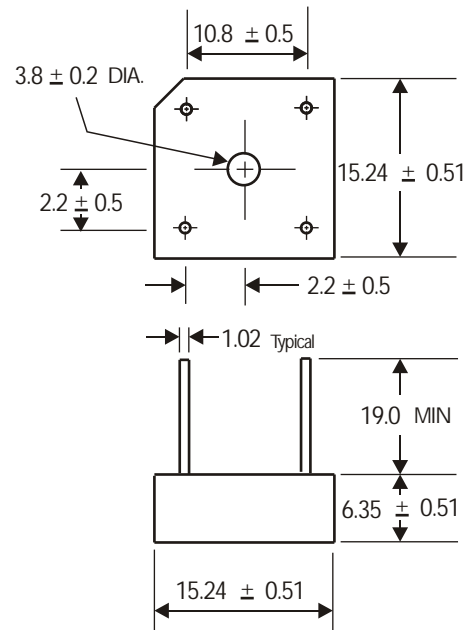


**CURRENT** 3.0 Ampere  
**VOLTAGE RANG** 50 to 1000 Volts

## KBPC301 THRU KBPC310

### Features

- This series is SGS listed under the Recognized Component Index, file number SZXEC1902259902
- 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°C/10 seconds at 5 lbs (2.3kg) tension



Dimensions in millimeters(1mm =0.0394")

### 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: 3.8 grams (approx)

### 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 3005	KBPC 301	KBPC 302	KBPC 304	KBPC 306	KBPC 308	KBPC 310	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 Tc = 75 °C (1)	IF(AV)	3.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	50							A
Rating for fusing ( t<8.3ms)	I <sup>2</sup> t	10							A <sup>2</sup> sec
Typical thermal resistance per element(2)	ReJA	10							°C / W
Typical junction capacitance per element(3)	Cj	25							pF
Operating junction and storage temperature range	TJ, TSTG	-65 to + 125							°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 3005	KBPC 301	KBPC 302	KBPC 304	KBPC 306	KBPC 308	KBPC 310	Unit
Maximum instantaneous forward voltage drop per leg at 1.5A	VF	1.1							V
Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA =100 C	IR	10 1000							μA

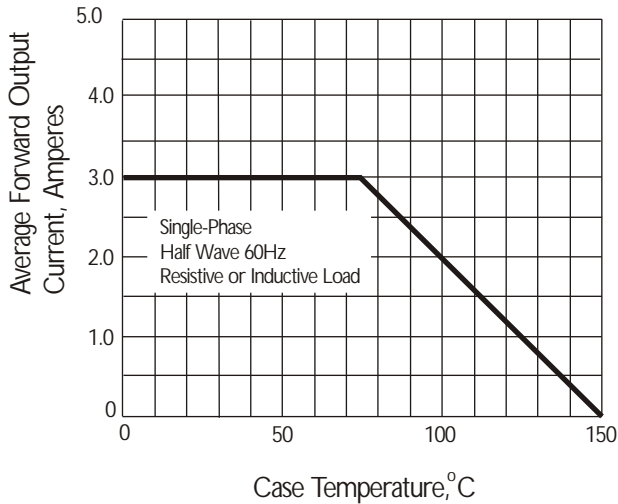
**Notes:** (1)Mounted on metal chassis.  
 (2)Non-repetitive, for t>1ms and < 8.3ms.  
 (3)Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

CURRENT 3.0 Ampere  
 VOLTAGE RANG 50 to 1000 Volts

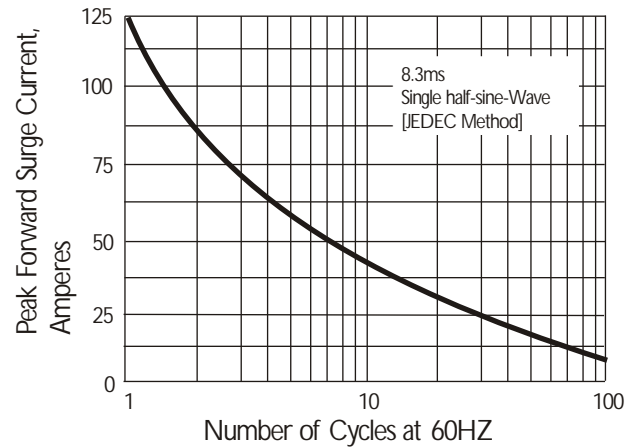
**KBPC301 THRU KBPC310**

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

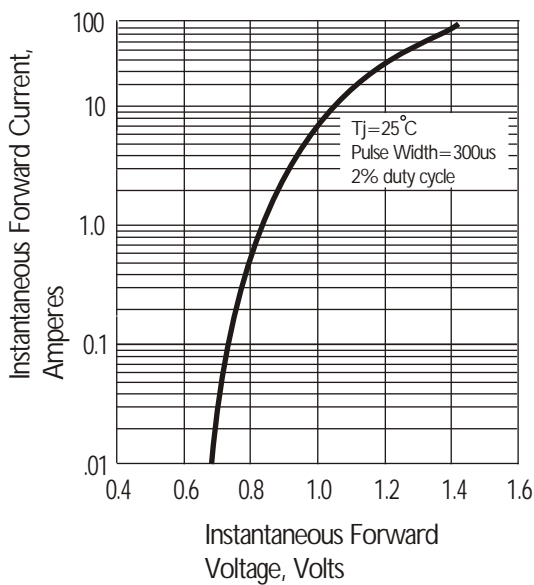
**Fig. 1 Derating Curve for Output Rectified Current**



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



**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 4 Typical Reverse Characteristics**

