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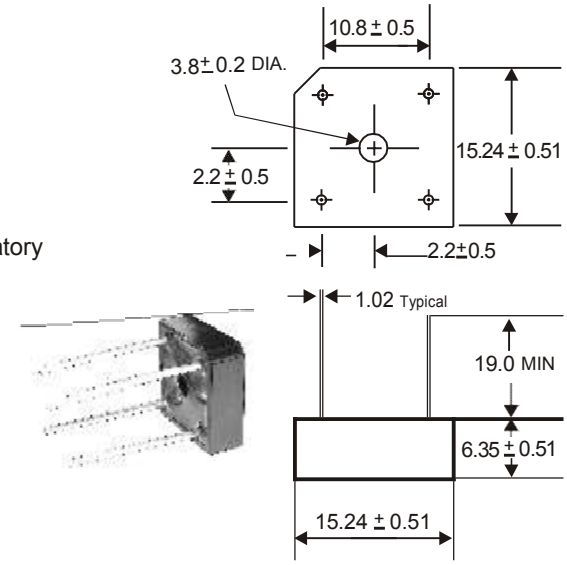
KBPC605 thru KBPC610

6.0 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 μA
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- High temperature soldering guaranteed ℃/10 seconds at 5 lbs (2.3kg) tension



Dimensions in millimeters =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	KBPC605	KBPC61	KBPC62	KBPC64	KBPC66	KBPC68	KBPC610	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℃ (1)	IF(AV)	6.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	125							A
Rating for fusing (t<8.3ms)	I^2t	10							A^2sec
Typical thermal resistance per element (2)	ReJA	9.4							°C / W
Typical junction capacitance per element(3)	Cj	55							pF
Operating junction and storage temperature range	TJ, TSTG	-55 to + 150							℃

Electrical Characteristics

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

Parameter	Symbol	KBPC605	KBPC61	KBPC62	KBPC64	KBPC66	KBPC68	KBPC610	Unit
Maximum instantaneous forward voltage drop per leg at 3.0A	VF	1.1							V
Maximum DC reverse current at rated DC blocking voltage per element TA =25 °C 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.

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

KBPC605 thru KBPC610

Fig. 1 Derating Curve for Output Rectified Current

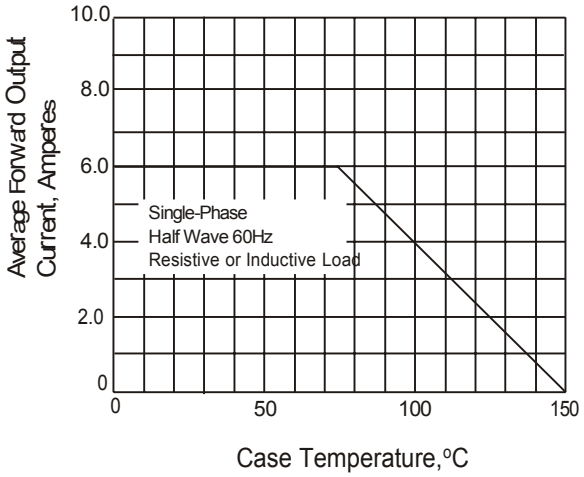

Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

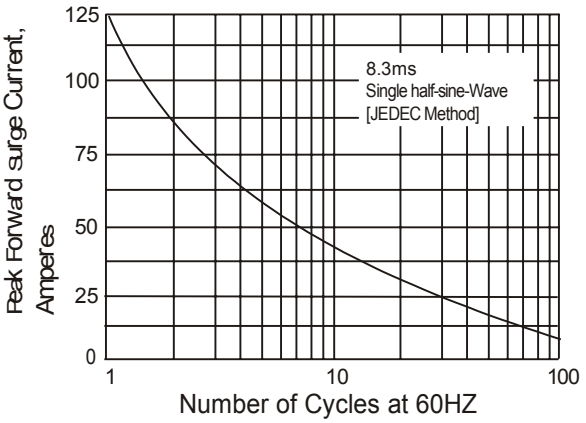

Fig. 3 Typical Instantaneous Forward Characteristics

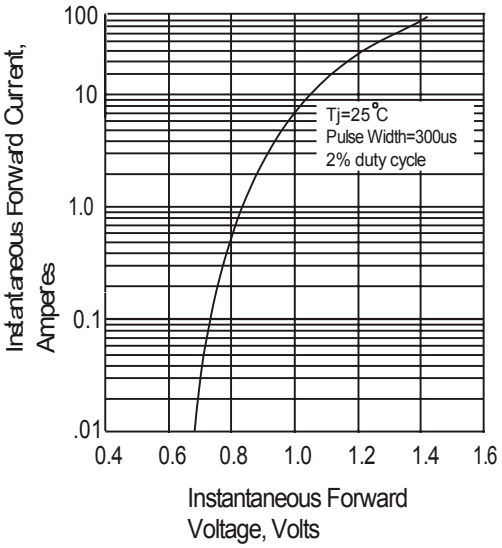

Fig. 4 Typical Reverse Characteristics