SINGLE-PHASE BRIDGE RECTIFIER

KBPC15005N THRU KBPC1510N	BR1505 THRU BR1510

FEATURES

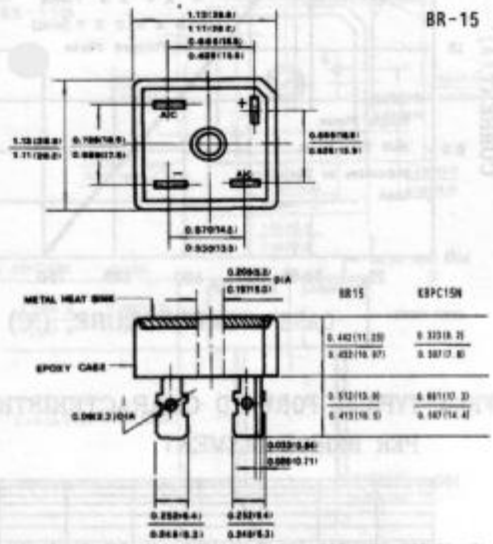
- Low cost
- This series is UL recognized under component index, file number E127707
- High forward surge current capability
- Integrally molded heatsink provide very low thermal resistance.
- High isolation voltage from case to lugs.
- High temperature soldering guaranteed: 260℃/10 seconds, at 5 lbs. (2.3kg) tension.

MECHANICAL DATA

- Case: Molded plastic body, suffic" N" for thinner type
- Terminal: Plated 0.25" (6.35mm) lug.
- Polarity: Polarity symbols marked on case
- Mounting: Thru hole for #10 screw, 20 in.-lbs. torque max.
- Weight: 0.66 ounce, 18.7 grams (BR15)
  0.55 ounce, 15.6 grams (KBPC15N)

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 15 Amperes

BR-15



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load derate current by 20%.

	SYMBOLS	KBPC 15005N BR1505	KBPC 1501N BR151	KBPC 1502N BR152	KBPC 1504N BR154	KBPC 1506N BR156	KBPC 1508N BR158	KBPC 1510N BR1510	UNITS
Maximum Repetitive PeakReverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current, at T_C=55℃ (Note 1,2)	$I_{(AV)}$	15							Amps
Peak Forward Surge Current 8.3ms single half sine—wave superimposed on rated load (JEDEC Method)	I_{FSM}	300							Amps
Rating for Fusing (t<8.3ms)	I^2t	373							A^2s
Maximum Instantaneous Forward Voltage Drop per bridge element at 7.5A	V_F	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage per element, T_A=25℃	I_R	10							μAmps
Maximum DC Reverse Current at rated DC blocking voltage per element, T_A=100℃	I_R	1.0							mAmps
Isolation Voltage from case to lug.	V_{ISO}	2500							V_{AC}
Typical Thermal Resistance (Note 1,2)	$R_{\theta JC}$	2.0							pF
Operating and Storage Temperature Range	T_J, T_{STG}	−65 to +150							℃

NOTES:

1. Unit mounted on 5" ×4" ×3" (12.8cm×10.2cm×7.3cm) Al. finned plate.
2. Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency with #10 screw.

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

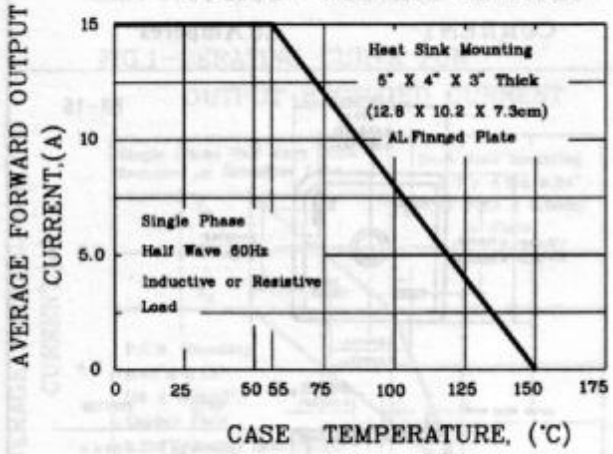


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

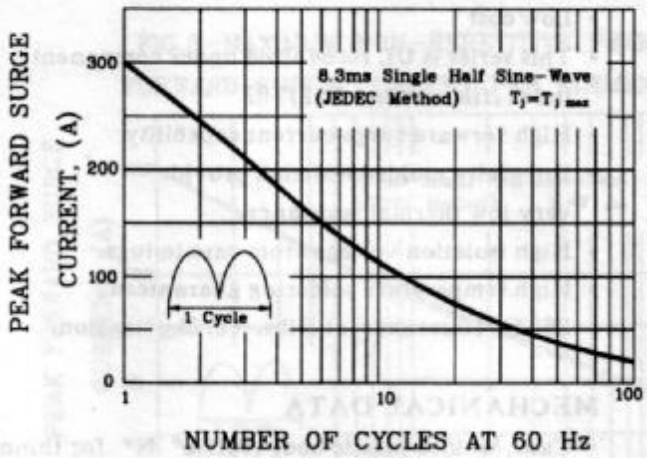


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

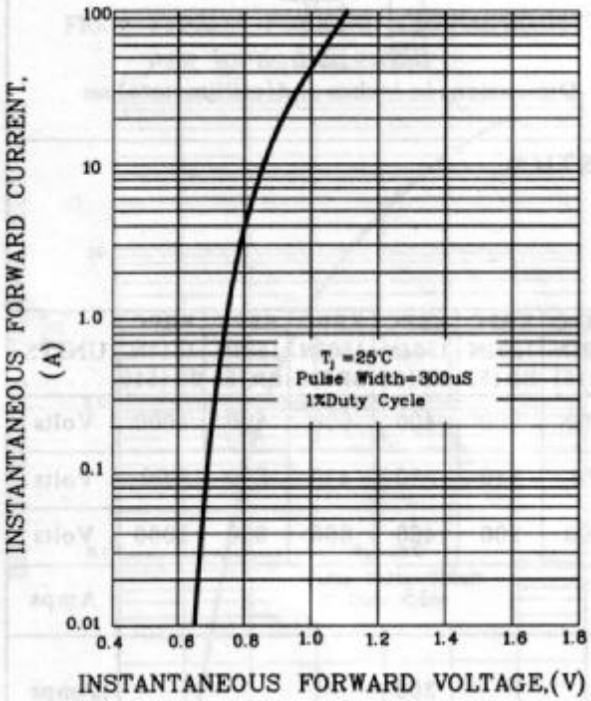


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

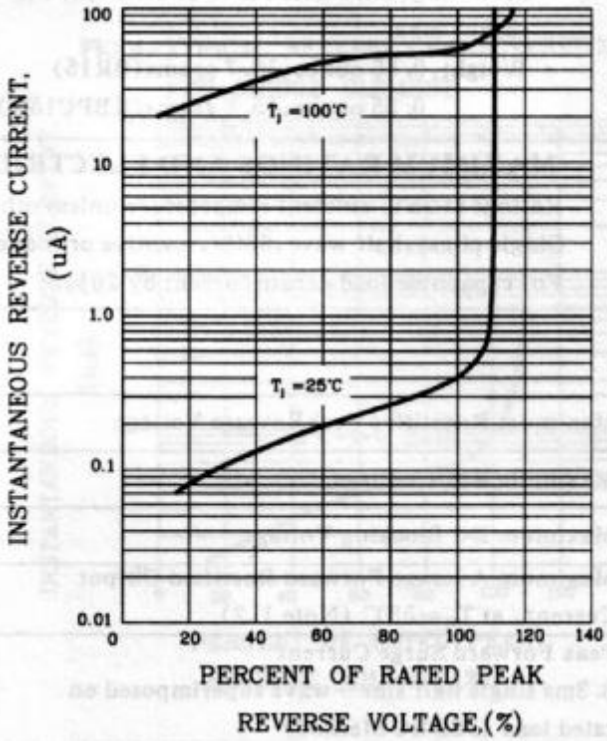


FIG.5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

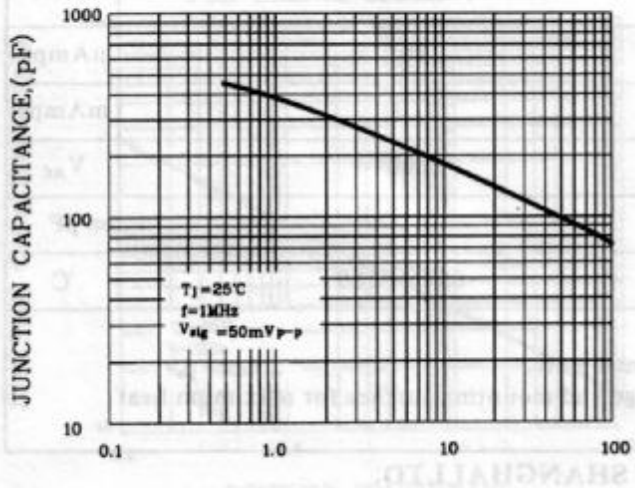


FIG.6-MAXIMUM POWER DISSIPATION