



SINGLE-PHASE BRIDGE RECTIFIER

KBPC25005N THRU KBPC2510N

VOLTAGE RANGE
CURRENT

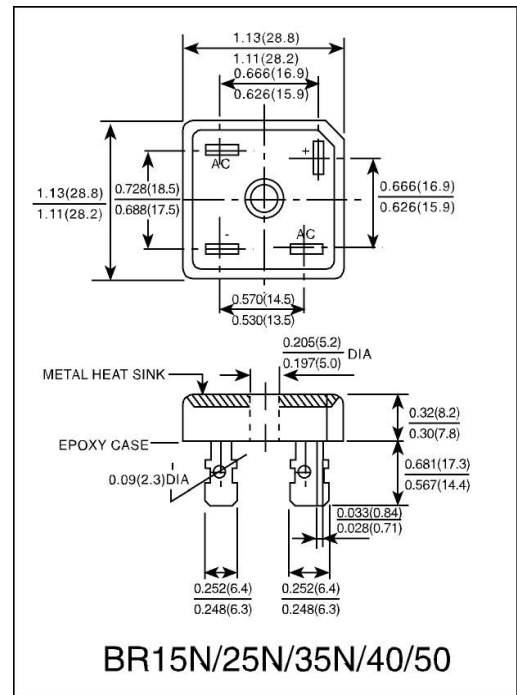
50 to 1000 Volts
25 Ampere

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°C/10 second, at 5 lbs. (2.3kg) tension.

MECHANICAL DATA

- Case: Molded plastic body, suffix "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: 0.55 ounce, 15.6gram(KBPC25N)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOLS	KBPC 25005N	KBPC 2501N	KBPC 2502N	KBPC 2504N	KBPC 2506N	KBPC 2508N	KBPC 2510N	UNIT
Maximum Repetitive Peak Reverse 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 $T_C = 50^\circ C$ (Note 1, 2)	$I_{(AV)}$	25							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 12.5A	V_F	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage per element	I_R	$T_A = 25^\circ C$							μA
		$T_A = 100^\circ C$							mA
Isolation Voltage from case to lug.	V_{ISO}	2500							V_{AC}
Typical Thermal Resistance (Note 1,2)	$R_{\theta JC}$	2.0							$^\circ C/W$
Operating Temperature Range	T_J	(-65 to +150)							$^\circ C$
Storage Temperature Range	T_{STG}	(-65 to +150)							

1. Unit mounted on 5" X 6" X 4.9" (12.8cm X 15.2cm X 12.4cm)Al. finned Plate.

2. Bolt down on heat-sink with silicon thermal compound between bridge and mounting surface for maximum heat transfer efficiency with # 10 screw.

RATINGS AND CHARACTERISTIC CURVES KBPC2500N THRU KBPC2510N

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

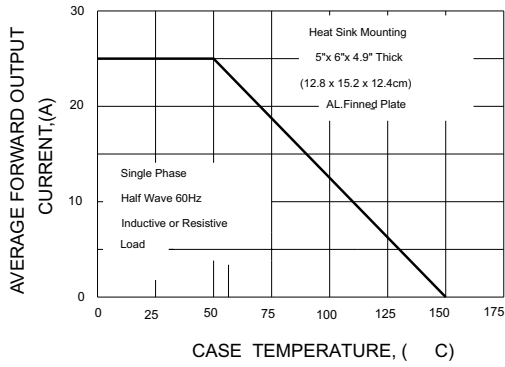


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

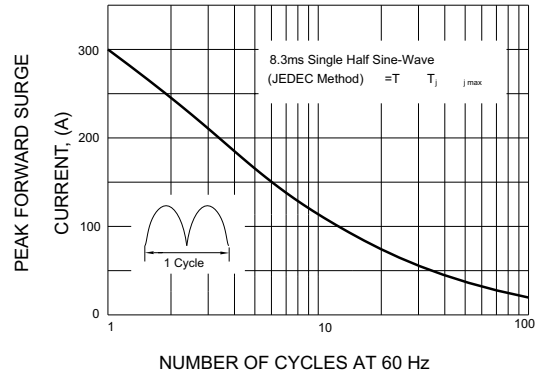


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

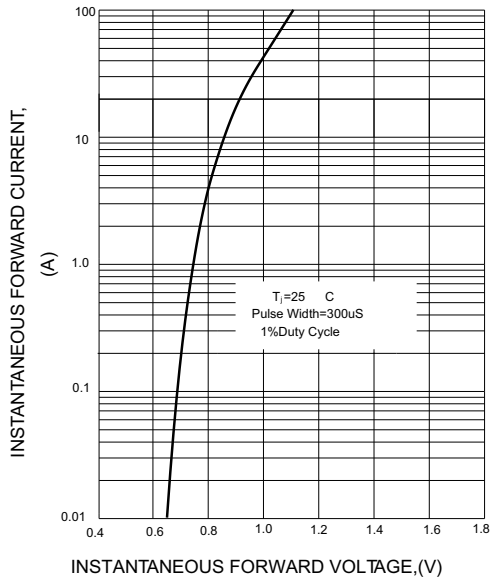


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

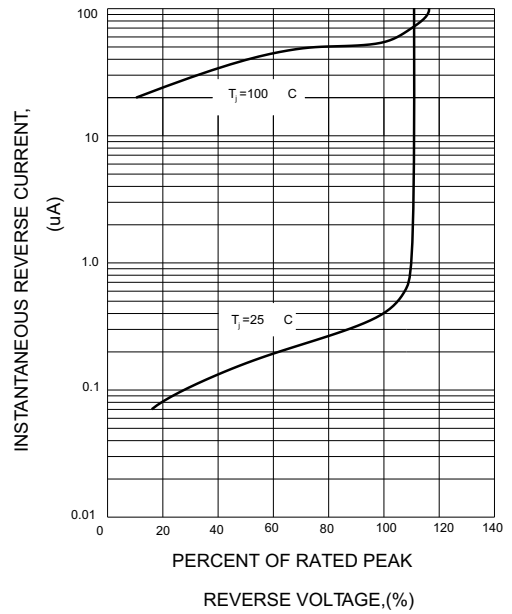


FIG.5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

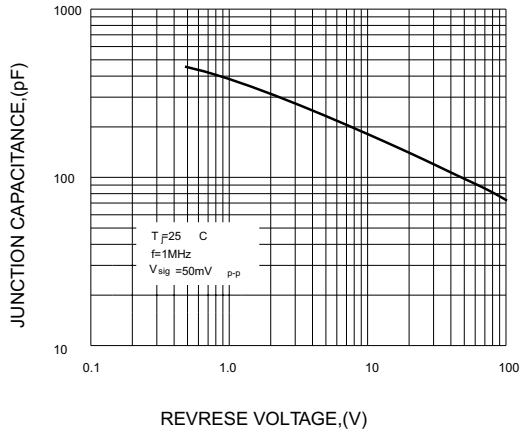


FIG.6-MAXIMUM POWER DISSIPATION

