



# DATA SHEET

SEMICONDUCTOR

KBPC25005N THRU KBPC2510N

**VOLTAGE RANGE 50 to 1000 Volts**



**CURRENT 25 Ampere**

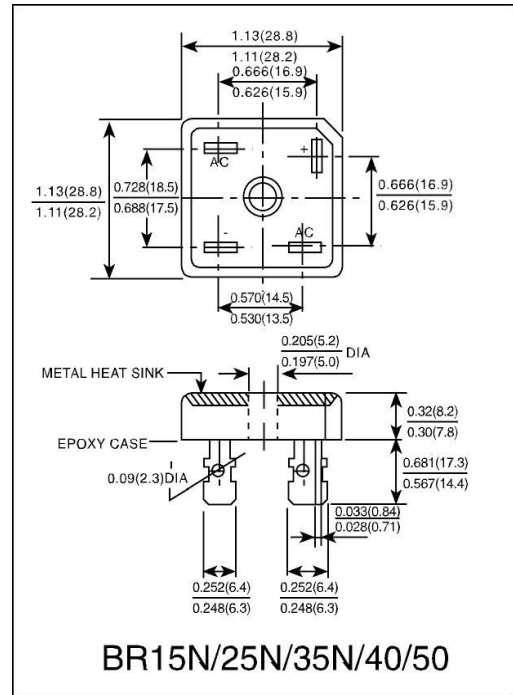
**BR35N Unit: inch(mm)**

**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 second, at 5 lbs. (2.3kg) tension.
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

**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. Torqute Max.
- Weight: 0.55 ounce, 15.6gram(KBPC25N)



**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 25005N	KBPC 2501N	KBPC 2502N	KBPC 2504N	KBPC 2506N	KBPC 2508N	KBPC 2510N	UNIT
<b>Maximum Repetitive Peak Reverse Voltage</b>	VRRM	50	100	200	400	600	800	1000	Volts
<b>Maximum RMS Voltage</b>	VRMS	35	70	140	280	420	560	700	Volts
<b>Maximum DC Blocking Voltage</b>	VDC	50	100	200	400	600	800	1000	Volts
<b>Maximum Average Forward Rectified Output Current, at TC = 50_ (Note 1, 2)</b>	I(AV)	25							Amps
<b>Peak Forward Surge Current 8.3ms single half sine - wave superimposed on rated load (JEDEC method )</b>	IFSM	300							Amps
<b>Rating for Fusing (t&lt;8.3ms)</b>	I2t	373							A2s
<b>Maximum Instantaneous Forward Voltage Drop per bridge element at 12.5A</b>	VF	1.1							Volts
<b>Maximum DC Reverse Current at rate DC blocking voltage per element</b>	IR	10							μ A
									TA = 25
	TA = 100	1.0							mA
<b>Isolation Voltage from case to lugs</b>	VISO	2500							VAC
<b>Typical Thermal Resistance (Note 1,2)</b>	R JC	2.0							/W
<b>Operating Temperature Range</b>	TJ	(-65 to +150)							
<b>Storage Temperature Range</b>	TSTG	(-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 sutfae for maximum heat transfer efficiency with # 10 screw.

# DEVICE CHARACTERISTICS

## KBPC25005N THRU KBPC2510N

FIG.1-DERATING CURVE FOR  
OUTPUT RECTIFIED CURRENT

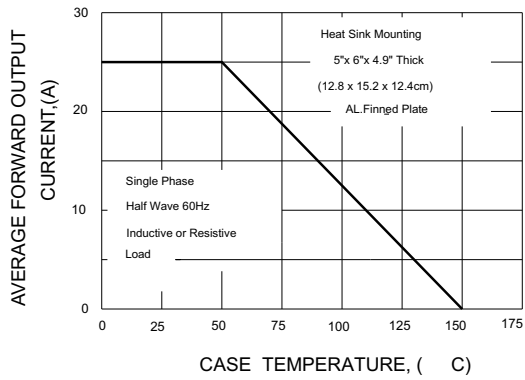


FIG.2-MAXIMUM NON-REPETITIVE PEAK  
FORWARD SURGE CURRENT PER ELEMENT

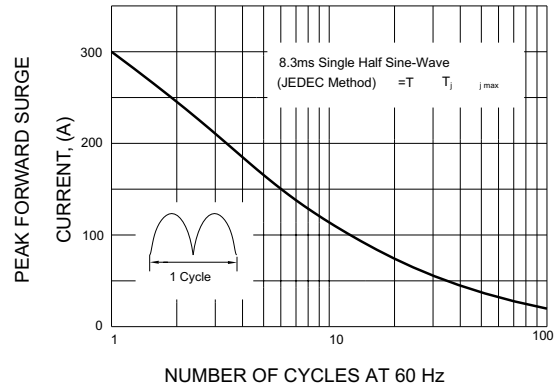


FIG.3-TYPICAL FORWARD CHARACTERISTICS  
PER BRIDGE ELEMENT

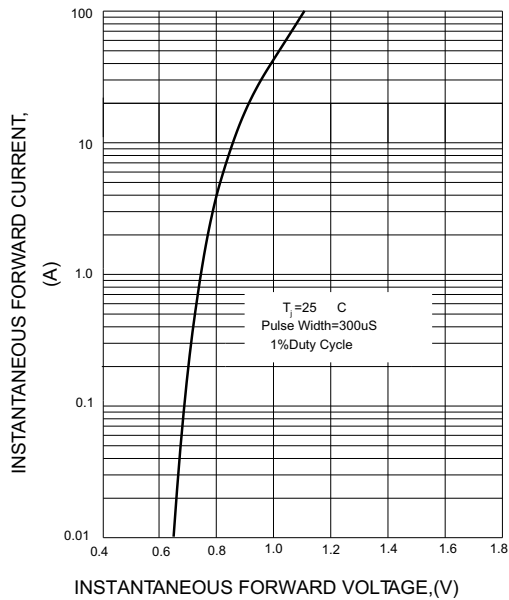


FIG.4-TYPICAL REVERSE CHARACTERISTICS  
PER BRIDGE ELEMENT

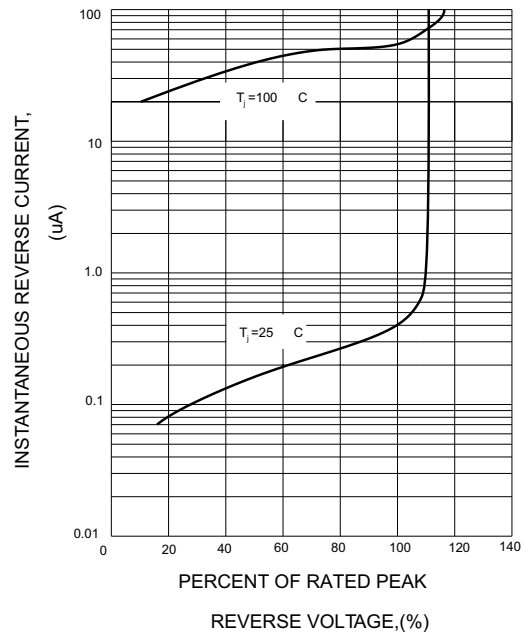


FIG.5-TYPICAL JUNCTION CAPACITANCE  
PER BRIDGE ELEMENT

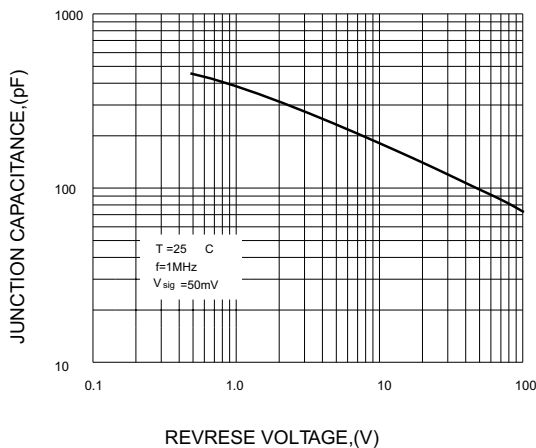


FIG.6-MAXIMUM POWER DISSIPATION

