



# DATA SHEET

SEMICONDUCTOR

KBPC25005N THRU KBPC2510N

**VOLTAGE RANGE 50 to 1000 Volts**



**CURRENT 25 Ampere**

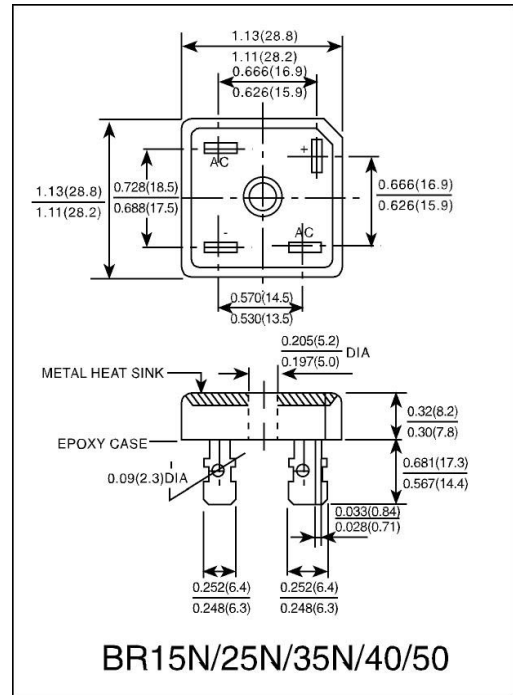
**BR35N Unit: inch(mm)**

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

# DEVICE CHARACTERISTICS

## KBPC25005N THRU KBPC2510N

FIG.1-DERATING CURVE FOR  
OUTPUT RECTIFIED CURRENT

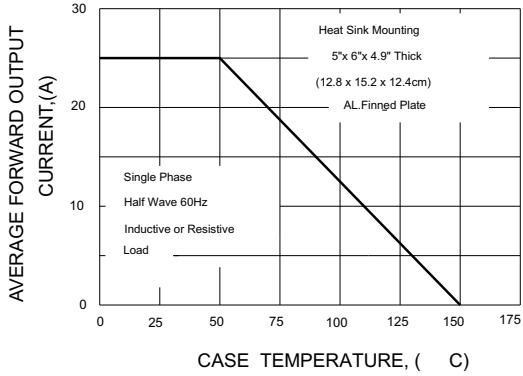


FIG.2-MAXIMUM NON-REPETITIVE PEAK  
FORWARD SURGE CURRENT PER ELEMENT

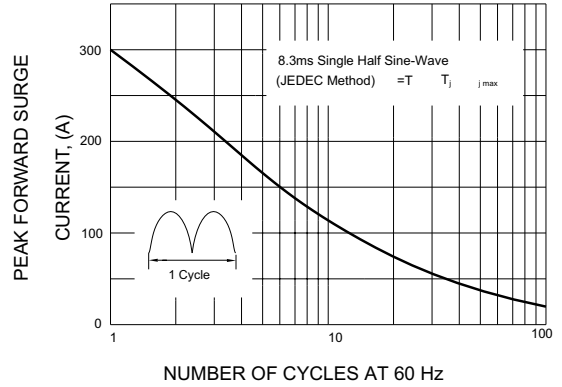


FIG.3-TYPICAL FORWARD CHARACTERISTICS  
PER BRIDGE ELEMENT

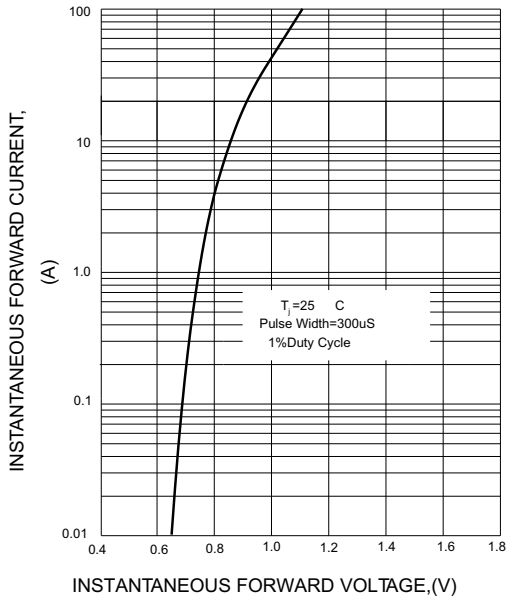


FIG.4-TYPICAL REVERSE CHARACTERISTICS  
PER BRIDGE ELEMENT

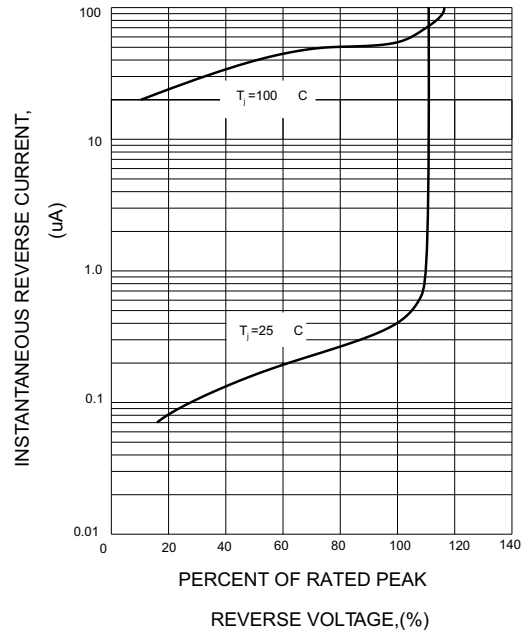


FIG.5-TYPICAL JUNCTION CAPACITANCE  
PER BRIDGE ELEMENT

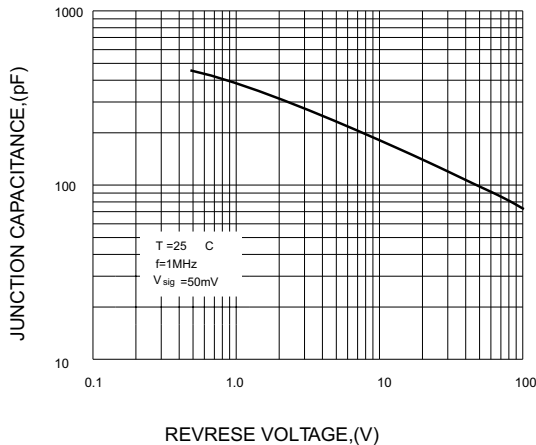


FIG.6-MAXIMUM POWER DISSIPATION

