



SINGLE PHASE BRIDGE RECTIFIER

FBPC25005WN THRU FBPC2510WN

VOLTAGE RANGE
CURRENT

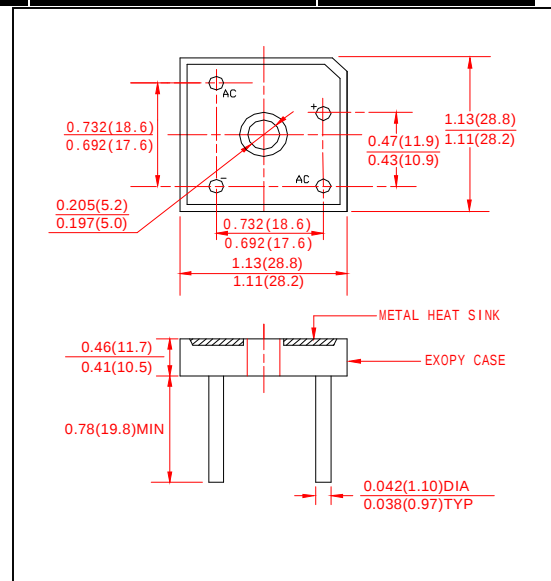
50 to 1000 Volts
25 Ampere

FEATURES

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

MECHANICAL DATA

- **Case: Molded plastic body**
- **Terminal: Plated 0.04" (1.02mm) diameter**
- **Polarity: Polarity symbols marked on case**
- **Mounting: Thru hole for #10 screw, 20 in.-lbs Torque Max.**
- **Weight: 0.47 ounce, 13.4 gram**



- **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%**

		SYMBOL	FBPC 25005WN	FBPC 2501WN	FBPC 2502WN	FBPC 2504WN	FBPC 2506WN	FBPC 2508WN	FBPC 2510WN	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°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 ² t	373							A ² s
Maximum Instantaneous Forward Voltage Drop per Bridge element at 12.5 A		V _F	1.2				1.3			Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	T _A = 25 °C	I _R	10							μA
	T _A = 100 °C		1.0							mA
Maximum DC Reverse recovery time(Note3)		T _{rr}	150				250	500		NS
Isolation Voltage from case to lead		V _{ISO}	2500							V _{AC}
Typical Thermal Resistance (Note 1,2)		R _{θJc}	2.0							°C/W
Operating Temperature Rang		T _J	(-65 to +150)							°C
Storage Temperature Rang		T _{STG}	(-65 to +150)							°C

Notes:

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
3. Reverse recovery test conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$



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RATINGS AND CHARACTERISTIC CURVES FBR2505WN THRU FBR2510WN

FIG.1-DERATING CURVE FOR
OUTPUT RECTIFIED CURRENT

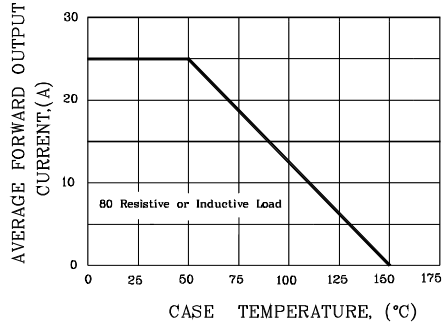


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

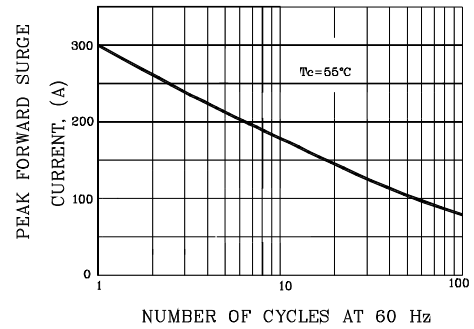


FIG.3-TYPICAL FORWARD CHARACTERISTICS
PER DIODE

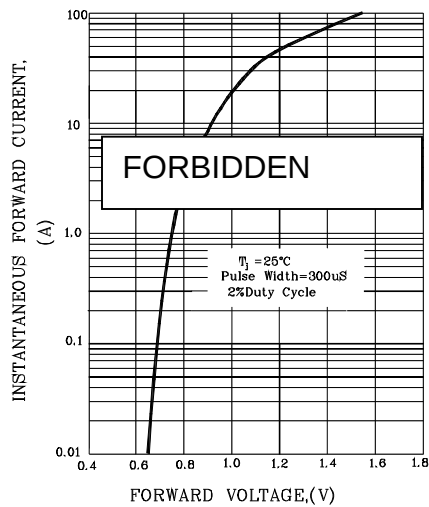


FIG.4-TYPICAL REVERSE CHARACTERISTICS
PER DIODE

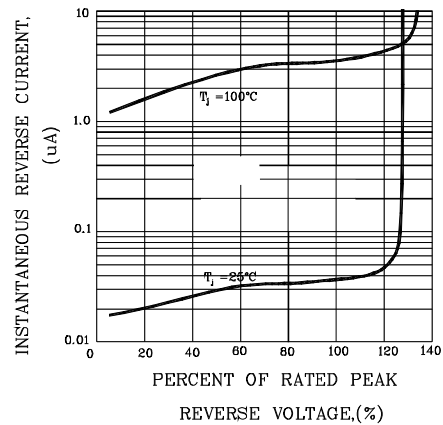


FIG.4-TYPICAL JUNCTION CAPACITANCE

