



SINGLE PHASE BRIDGE RECTIFIER

FBPC25005WN THRU FBPC2510WN

**VOLTAGE RANGE
CURRENT**

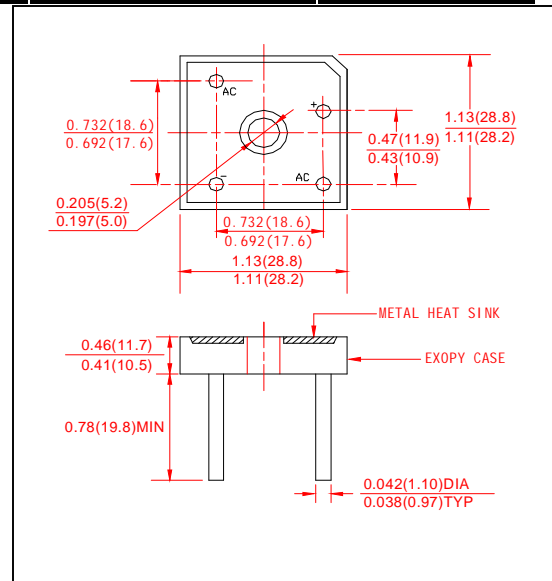
**50 to 1000 Volts
25 Ampere**

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 $T_C = 50^\circ C$ (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 ($t < 8.3mS$)	$I^2 t$	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	$T_A = 25^\circ C$	10							μA	
	$T_A = 100^\circ C$	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)	$R_{\theta Jc}$	2.0							$^\circ C/W$	
Operating Temperature Rang	T_J	(-65 to +150)							$^\circ C$	
Storage Temperature Rang	T_{STG}	(-65 to +150)							$^\circ C$	

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: $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$



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RATINGS AND CHARACTERISTIC CURVES FBR2505WN THRU FBR2510WN

FIG.1-DERATING CURVE FOR
OUTPUT RECTIFIED CURRENT

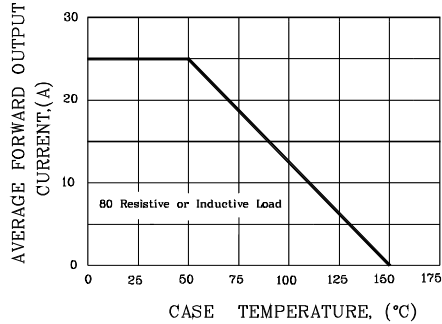


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

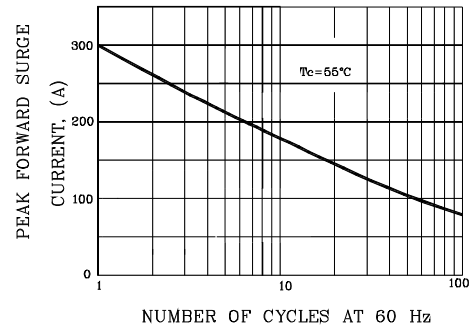


FIG.3-TYPICAL FORWARD CHARACTERISTICS
PER DIODE

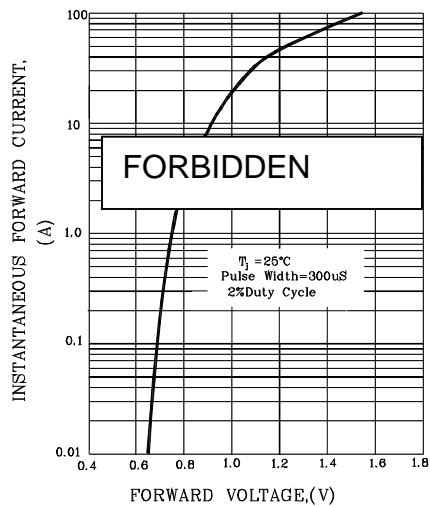


FIG.4-TYPICAL REVERSE CHARACTERISTICS
PER DIODE

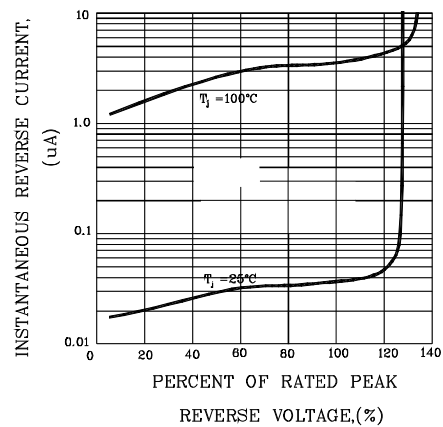


FIG.4-TYPICAL JUNCTION CAPACITANCE

