20 STERN AVE. SPRINGFIELD, NEW JERSEY 07081 **GBPC6005 - GBPC610** U.S.A.

PRV: 50 - 1000 Volts

lo: 6.0 Amperes

FEATURES:

- * Glass passivated chip
- High surge current capability
- High current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Ideal for printed circuit board
- * Pb / RoHS Free

MECHANICAL DATA:

- Case : Reliable low cost construction
- utilizing molded plastic technique
- * Epoxy : UL94V-O rate flame retardant
- Lead : Axial lead solderable per
- MIL STD 202, Method 208 guaranteed * Polarity : Polarity symbols marked on case
- * Mounting position : Any
- * Weight: 3.6 grams

TELEPHONE: (973) 376-2922 (212) 227-6005 **GLASS PASSIVATED SINGLE-**PHASE BRIDGE RECTIFIERS



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise noted.

RATING	SYMBOL	GBPC 6005	GBPC 601	GBPC 602	GBPC 604	GBPC 606	GBPC 608	GBPC 610	UNIT
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current Tc = 50 °C ^(1, 2)	I _{F(AV)}	6.0						А	
Peak Forward Surge Current Single Sine Wave Superimposed on Rated Load	I _{FSM}	175						А	
Rating for fusing (t < 8.3 ms)	l ² t	127						A ² sec	
Maximum Instantaneous Forward at I _F =3 A. Voltage Drop Per Leg	V _F	1.0						V	
Maximum DC Reverse Current at Ta = 25 °C	I _R	5						μA	
Rated DC Blocking Voltage Per Leg Ta = 125 °C	I _{R(H)}	500						μA	
Typical Junction Capacitance Per Leg(at 4 V, 1MHz)	CJ	186 90				pF			
Typical Thermal Resistance Per Leg ⁽¹⁾	R _{eja}	22						°C/W	
	R _{ejc}	7.3					°C/W		
Operating Junction and Storage Temperature Range	T _J , T _{STG}	- 55 to + 150							°C

Notes :

(1) Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer with #6 screw (2) Unit mounted on 5.5 x 6.0 x 0.11" thick (14 x 15 x 0.3 cm) Al. Plate



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

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RATING AND CHARACTERISTIC CURVES (GBPC6005 - GBPC610)