

Glass Passivated Bridge Rectifiers

FEATURES

- Glass passivated junction
- Integrally molded heatsink provide very low thermal resistance for maximum heat dissipation
- Universal 4-way terminals: snap-on, wrap-around, solder or P.C. board mounting
- High surge current capability
- UL Recognized File # E-326243
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC







GBPC40

GBPC40-M

ROHS

MECHANICAL DATA

Case: GBPC40

Molding compound, UL flammability classification rating 94V-0 **Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test **Polarity:** Polarity as marked on the body **Mounting torque:** 20 in-lbs maximum **Weight:** 17.3 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)									
PARAMETER	SYMBOL	005	01	02	04	06	08	10	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS 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 rectified current GBPC40 GBPC50	I _{F(AV)}	40 50						А	
Peak forward surge current,8.3 ms GBPC40 single half sine-wave superimposed GBPC50 on rated load	I _{FSM}	400						А	
Maximum instantaneous GBPC40 20 A forward voltage drop per GBPC50 25 A element at specified current (Note 1)	V _F	1.1					V		
Maximum reverse current @ Rated VR	I _R	10						μA	
Typical thermal resistance	$R_{ heta JC}$				1.5				°C/W
Operating junction temperature range	TJ	- 55 to +150					°C		
Storage temperature range	T _{STG}	- 55 to +150					°C		

Note 1: Pulse test with PW=300µs, 1% duty cycle Note 2: Suffix "M" - Terminal Location Face to Face

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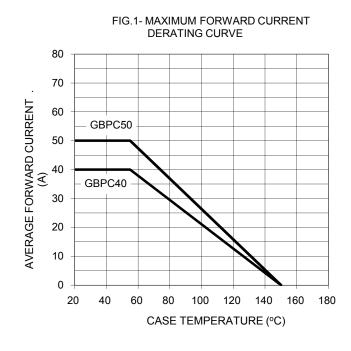
ORDERING INFORMATION					
PART NO.	PACKING CODE	PACKAGE	PACKING		
GBPC**xx (Note 1)	ТО	GBPC	Tray		

Note 1: "**" defines current from 40A (GBPC40xx) to 50A (GBPC50xx), "xx" defines voltage from 50V (GBPC**005) to 1000V (GBPC**10)

EXAMPLE							
PREFERRED P/N PART NO.		PACKING CODE	DESCRIPTION				
GBPC4010 T0	GBPC4010	T0					

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)



T,=125°C

T,=25°C

T,=25°C

T,=25°C

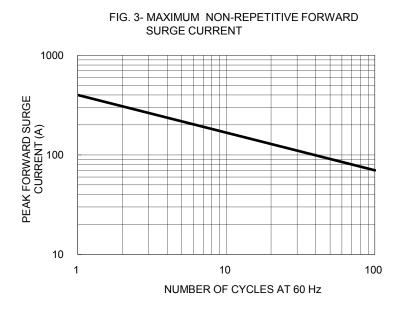
T,=25°C

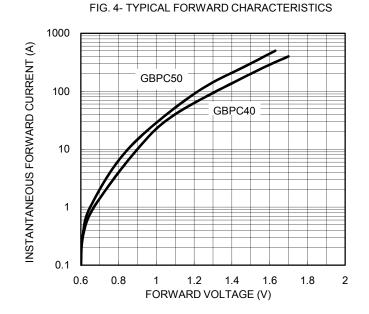
T,=25°C

100

0 20 40 60 80 100 120 140

PERCENT OF RATED PEAK REVERSE CHARACTERISTICS



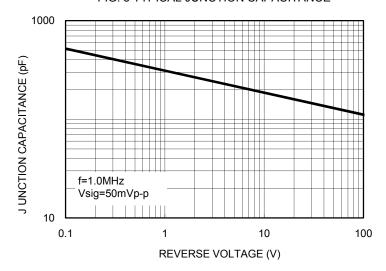


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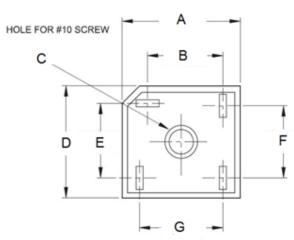
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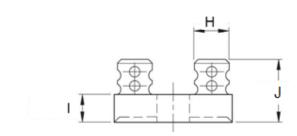


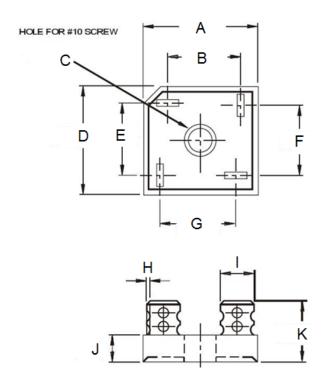
FIG. 5 TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS



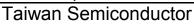




GBPC40						
DIM.	Unit	(mm)	Unit (inch)			
	Min	Max	Min	Max		
Α	28.50	29.00	1.122	1.142		
В	15.50	17.60	0.610	0.693		
С	5.08	5.59	0.200	0.220		
D	28.50	29.00	1.122	1.142		
Е	15.50	17.60	0.610	0.693		
F	13.30	15.30	0.524	0.602		
G	17.10	19.10	0.673	0.752		
Н	6.60	(TYP)	0.26 (TYP)			
I	7.36	7.87	0.290	0.310		
J	21.26	24.57	0.837	0.967		

GBPC40-M					
DIM.	Unit	(mm)	Unit (inch)		
	Min	Max	Min	Max	
Α	28.50	29.00	1.122	1.142	
В	15.50	17.60	0.610	0.693	
С	5.08	5.59	0.200	0.220	
D	28.50	29.00	1.122	1.142	
Е	15.50	17.60	0.610	0.693	
F	15.50	17.60	0.610	0.693	
G	15.50	17.60	0.610	0.693	
Н	0.76	0.86	0.030	0.034	
- 1	6.60	(TYP)	0.26 (TYP)		
J	7.36	7.87	0.290	0.310	
K	21.26	24.57	0.837	0.967	

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MARKING DIAGRAM

+ SERLIAC P/N YWWF P/N = Specific Device Code

YWW = Date Code

F = Factory Code

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