



GBPC5004F~GBPC5010F

Glass Passivated Bridge Rectifiers

VOLTAGE 400 to 1000 Volt **CURRENT** 50 Ampere

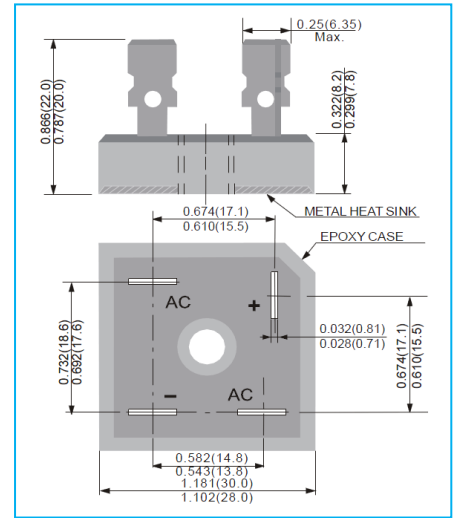
GBPC-F **Unit: Inch(mm)**

FEATURES

- UL Recognized File #E228882
- Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique.
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Glass passivated chip junction

MECHANICAL DATA

- Case: GBPC-F
- Terminals: Leads solderable per MIL-STD-750, Method 2026
- Polarity: As marked on body
- Mounting torque: 20 inch-lbs. Max.
- Weight: 16.83g



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	GBPC 5004F	GBPC 5006F	GBPC 5008F	GBPC 5010F	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	400	600	800	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	50				A
Peak forward surge current, 8.3 ms single half sine-wave	I_{FSM}	400				A
Rating of fusing ($t < 8.3ms$)(Note1)	I^2t	664				A ² s
Maximum instantaneous forward voltage per diode $I_F = 25 A$	V_F	1.1				V
Maximum reverse current @ rated V_R $T_J = 25^\circ C$ $T_J = 125^\circ C$	I_R	5				μA
		500				
Typical junction capacitance (Note 2)	C_J	178				pF
Typical thermal resistance (Note 3)	$R_{\theta JC}$	1.5				$^\circ C/W$
Operating junction temperature range	T_J	- 55 to +150				$^\circ C$
Storage temperature range	T_{STG}	- 55 to +150				$^\circ C$

Note 1: Non-repetitive, for $t > 1ms$ and $< 8.3ms$.

Note 2: Measured at 1MHz and applied Reverse bias of 4V DC

Note 3: Products installed on aluminum plate heatsink ◦



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TYPICAL CHARACTERISTIC CURVES

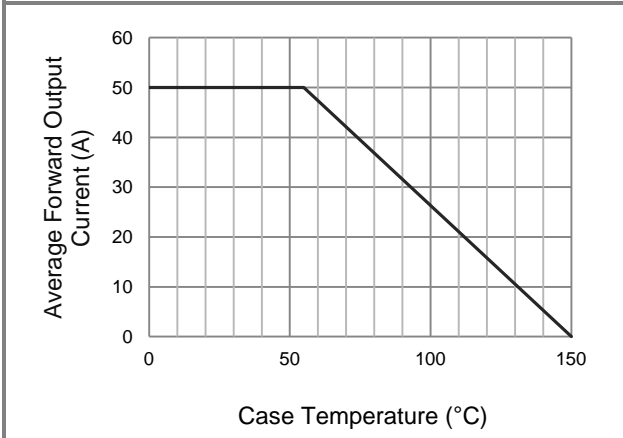


Fig.1 Forward Current Derating Curve

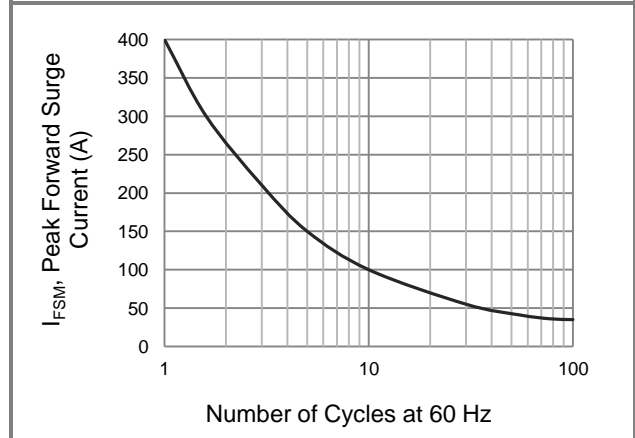


Fig.2 Maximum Forward Surge Current

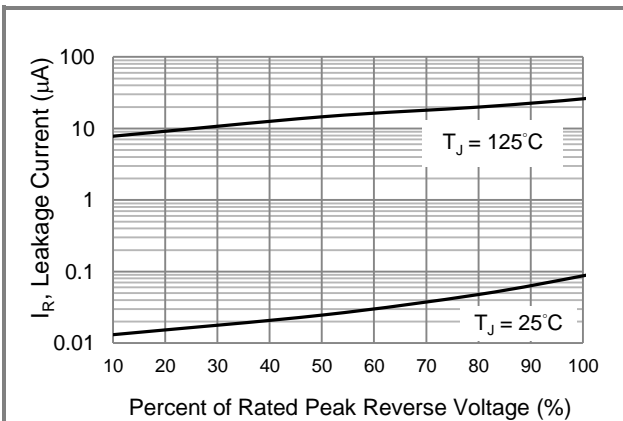


Fig.3 Typical Reverse Characteristics

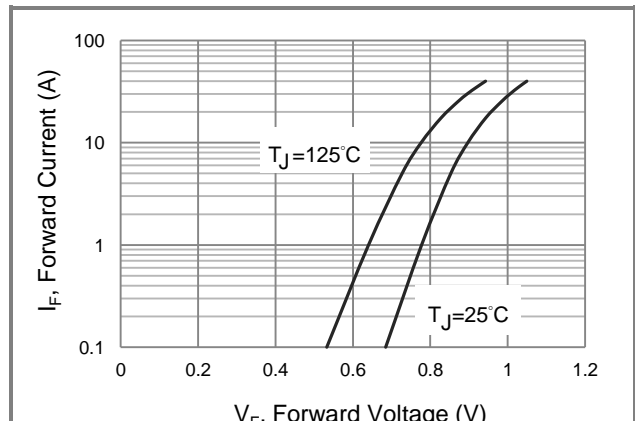


Fig.4 Typical Forward Characteristics

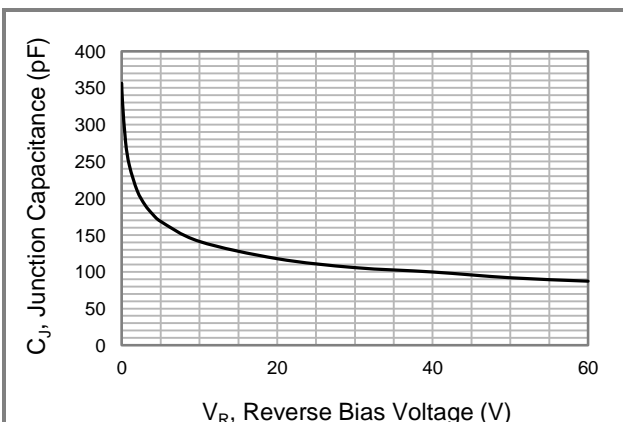


Fig.5 Typical Junction Capacitance



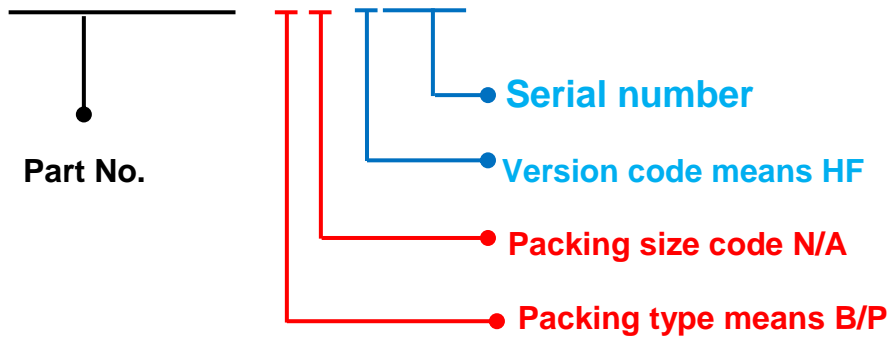
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Part No_packing code_Version

GBPC5004F_B0_00001
GBPC5004F_B0_10001

For example :

GBPC5004F_B0_00001



Packing Code XX				Version Code XXXXXX		
Packing type	1 st Code	Packing size code	2 st Code	HF or RoHS	1 st Code	2 st ~5 st Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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