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Jameco Part Number 785709

GBPC 12, 15, 25, 35 SERIES

Bridge Rectifiers (Glass Passivated)

Features

- Integrally molded heatsink provided very low thermal resistance for maximum heat dissipation.
- Surge overload ratings from 300 amperes to 400 amperes.
- Isolated voltage from case to lead over 2500 volts.
- UL certified, UL #E96005

Suffix "W"

Wire Lead Structure

Suffix "M"

Terminal Location Face to Face



Absolute Maximum Ratings * T_a = 25°C unless otherwise noted

Symbol	Parameter	Value							Units
		005	01	02	04	06	08	10	
V _{RRM}	Maximum Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
V _{RMS}	Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
V _R	DC Reverse Voltage (Rated V _R)	50	100	200	400	600	800	1000	V
I _{F(AV)}	Average Rectified Forward Current @ T _A = 55°C								
	GBPC12	12							A
	GBPC15	15							A
	GBPC25	25							A
	GBPC35	35							A
I _{FSM}	Non-Repetitive Peak Forward Surge Current								
	GBPC12, 25, 25 8.3ms Single Half-Sine-Wave	300							A
	GBPC35	400							A
T _{STG}	Storage Temperature Range	-55 to +150							°C
T _J	Operating Junction Temperature	-55 to +150							°C

* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Thermal Characteristics

Symbol	Parameter	Value	Units
P _D	Power Dissipation	83.3	W
R _{θJL}	Thermal Resistance, Junction to Lead	1.5	°C/W

Electrical Characteristics T_C = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _F	Forward Voltage Drop, per bridge @6.0A GBPC12 @7.5A GBPC15 @12.5A GBPC25 @17.5A GBPC35	1.1 (Max.)	V
I _R	Reverse Current, per element @ Rated V _R T _A = 25°C T _A = 125°C	5.0 (Max.) 500 (Max.)	μA μA
	I ² t Rating for Fusing t < 8.35ms GBPC12, 15, 25 GBPC35	375 660	A ² Sec A ² Sec
C _T	Total Capacitance, per leg V _R = 4.0V f = 1.0MHz GBPC12, 15, 25 GBPC35	180 200	pF pF

Typical Performance Characteristics

Figure 1. Forward Current Derating Curve

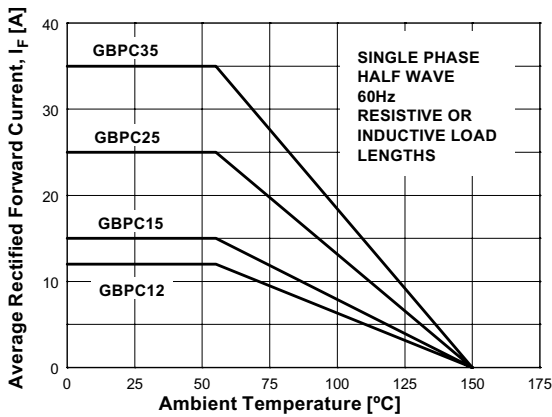


Figure 2. Non-Repetitive Surge Current

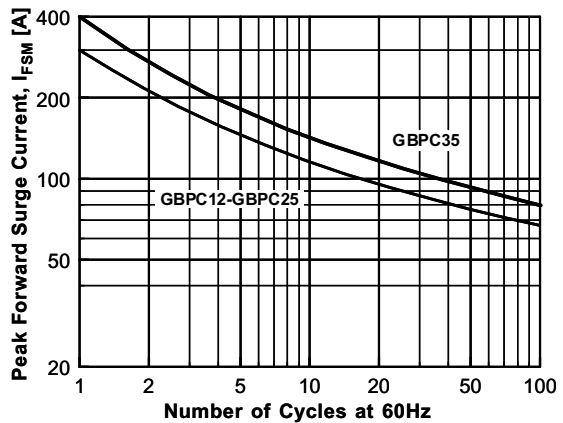


Figure 3. Forward Voltage Characteristics

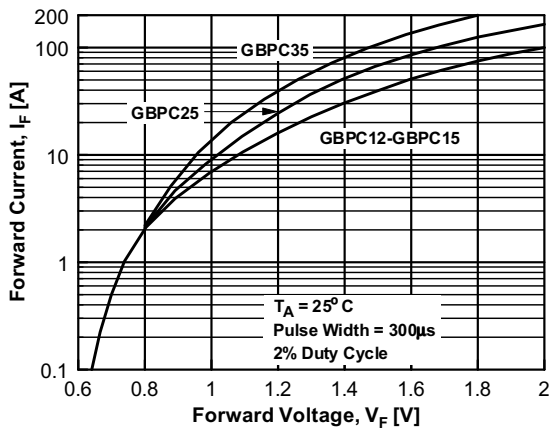
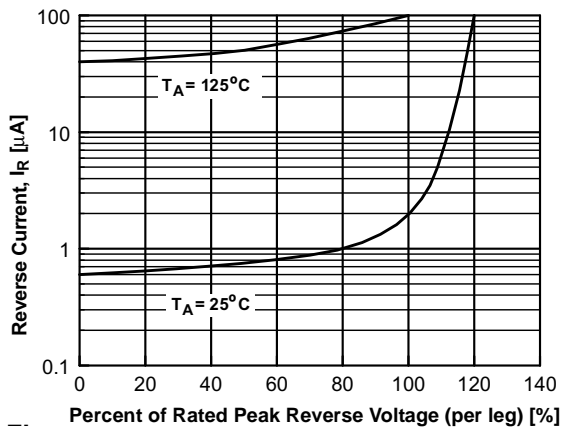


Figure 4. Reverse Current vs Reverse Voltage



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FACT™	ImpliedDisconnect™	OCXPro™	RapidConnect™	UHC™
FACT Quiet Series™		OPTOLOGIC [®]	μSerDes™	UltraFET [®]
Across the board. Around the world.™		OPTOPLANAR™	SILENT SWITCHER [®]	UniFET™
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