



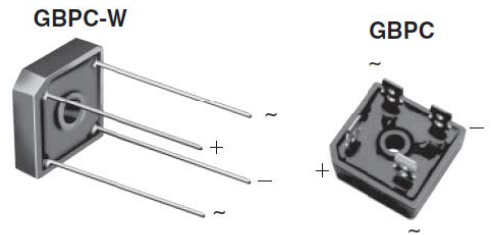
# GBPC25005(W)-GBPC2510(W)

High Current 25AMP.Single Phase Glass  
Passivated Bridge Rectifiers



## Features

- ✧ The plastic material used carries Underwriters Laboratory Flammability Recognition 94V-0
- ✧ Integrally molded heatsink provide very low thermal resistance for maximum heat dissipation
- ✧ Surge overload ratings from 350 amperes to 400 amperes
- ✧ Typical  $I_R$  less than 0.2  $\mu$ A
- ✧ High temperature soldering guaranteed: 260 °C / 10 seconds / .375", (9.5mm) lead lengths(For wire type)
- ✧ Isolated voltage from case to lead over 2500 volts



## Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

Type Number	Symbol	GBPC	GBPC	GBPC	GBPC	GBPC	GBPC	GBPC	Units
		25005	2501	2502	2504	2506	2508	2510	
Maximum Recurrent 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 @ $T_C=55^\circ C$	$I_{(AV)}$	25.0							A
Peak Forward Surge Current, Single Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	300							A
$I^2t$ Rating for fusing @ $T_j=25^\circ C$	$I^2t$	508							A <sup>2</sup> S
Maximum Instantaneous Forward Voltage Drop Per Element at Specified Current @12.5A	$V_F$	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage Per Element	$I_R$	5							$\mu$ A
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	3.0							°C/W
Operating and Storage Temperature Range	$T_J, T_{STG}$	-50 to +150							°C

Notes: 1. Thermal Resistance from Junction to Case.

2. Suffix "W" - Wire Lead Structure/"M" - Terminal Location Face to Face.

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## RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

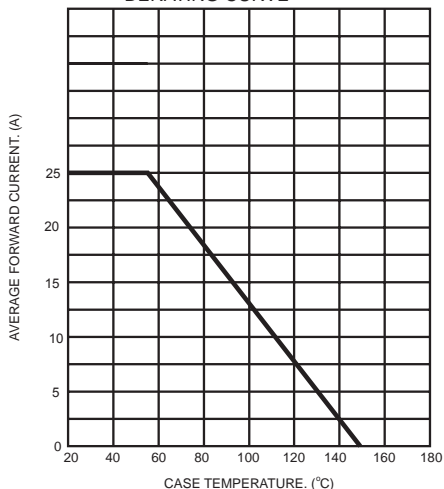


FIG.2- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

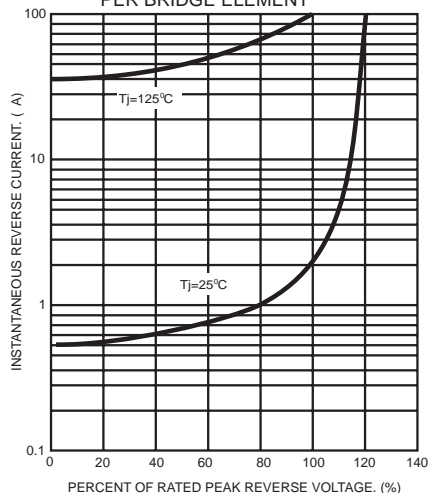


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

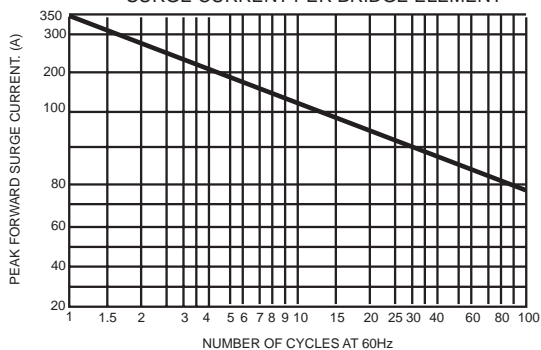


FIG.4- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

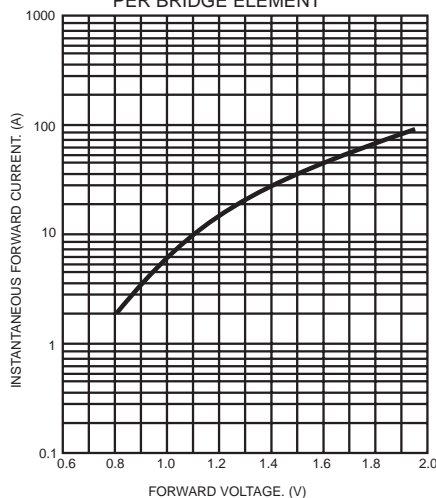
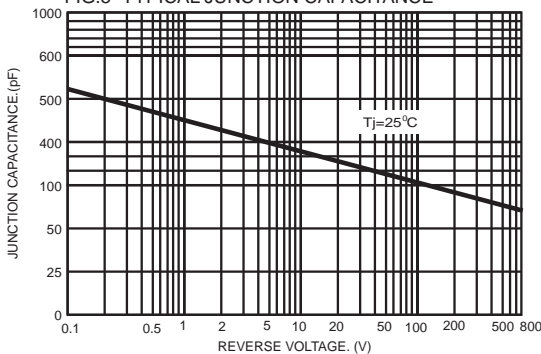


FIG.5- TYPICAL JUNCTION CAPACITANCE



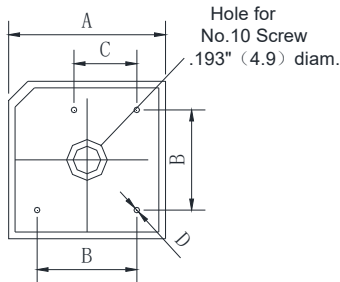
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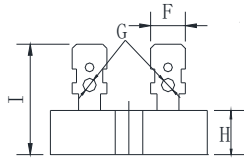
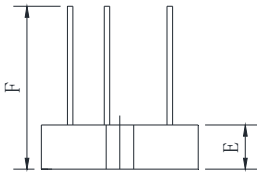
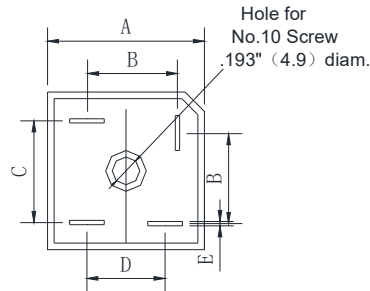


## Outline Dimensions

GBPC-W



GBPC



Dimensions in millimeters

GBPC-W		
Dim	Min	Max
A	28.2	28.8
B	17.1	19.1
C	10.4	12.4
D	0.95	1.05
E	7.6	8.2
F	30	

GBPC		
Dim	Min	Max
A	28.2	28.8
B	15.3	17.3
C	17.1	19.1
D	13.2	15.2
E	0.75	0.85
F	6.2	6.4
G	2.2	2.6
H	7.6	8.2
I	19	/