LITE-ON SEMICONDUCTORS

GLASS PASSIVATED BRIDGE RECTIFIERS

FEATURES

- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- The plastic material has UL flammability classification 94-0
- UL Recognition File#E95060

MECHANICAL DATA

- Case Material: "Green" molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- · Polarity indicator: As marked on body
- Weight: 1.33 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ℃ ambient temperature unless otherwise specified.

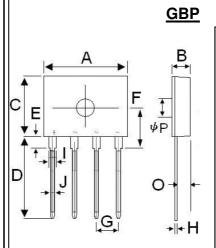
PARAMETER	SYMBOL	GBP206	GBP208	GBP210	UNIT
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	600	800	1000	V
Maximum DC Blocking Voltage	V _{DC}	600	800	1000	V
$\begin{array}{llllllllllllllllllllllllllllllllllll$	I _(AV)		2.0 1.2		A
Peak Forward Surge Current@ Tj = 25 $^{\circ}$ C8.3ms single half sine-wave@ T _J = 125 $^{\circ}$ C	I _{FSM}	75 65		А	
Peak Forward Surge Current@ Tj = 25 $^{\circ}$ C1.0ms single half sine-wave@ T_J = 125 $^{\circ}$ C	I _{FSM}	150 130		А	
Maximum Forward Voltage at 1.0A DC	VF	1.05		V	
Maximum DC Reverse Current@ $T_J = 25^{\circ}C$ at Rated DC Blocking Voltage@ $T_J = 125^{\circ}C$	I _R	5 500		uA	
I ² t Rating for fusing (t < 8.3ms)	l ² t		16		A ² S
Typical Junction Capacitance (Note 1)	CJ		25		pF
Typical Thermal Resistance (Note 2, 3)	R⊖ _{JC}	3		°C/W	
Typical Thermal Resistance (without heatsink)	R⊖ _{JC}		10		°C/W
Operating and Storage Temperature Range	T _J , T _{STG}		-55 to +150		°C

Note :

Measured at 1.0MHz and applied reverse voltage of 4.0V DC. (1)

Thermal Resistance Junction to Case. (2)

Device mounted on 50mm x 50mm x 1.6mm Cu Plate Heatsink. (3)



GBP				
Dim.	Min.	Max.		
Α	14.2	14.7		
В	2.9	3.3		
С	10.1	10.7		
D	13.8	14.4		
E	1.8	2.2		
F	6.65	7.25		
G	3.71	3.91		
Н	0.4	0.6		
I	1.20	1.40		
J	0.64	0.84		
0	1.8	2.4		
Р	3 .1 φ	3.3 φ		
All Dimensions in millimeter				

GBP206 thru GBP210

REVERSE VOLTAGE – 600 to 1000 Volts FORWARD CURRENT – 2.0 Ampere

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RATING AND CHARACTERISTIC CURVES GBP206 to GBP210

FIG.1- FORWARD CURRENT DERATING CURVE FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT 2 70 PEAK FORWARD SURGE CURRENT, 60 AVERAGE FORWARD CURRENT, (A) 1.5 50 40 3 1 30 20 0.5 10 Pulse width 8.3ms Single Half Sine-Wave 0 10 100 1 0 NUMBER OF CYCLES AT 60Hz 0 25 50 75 100 125 150 CASE TEMPERATURE, (°C) FIG.3- TYPICAL FORWORD CHARACTERISTICS FIG.4- TYPICAL JUNCTION CAPACITANCE 100 100 INSTANTANEOUS FORWARD 10 CAPACITANCE, (pF) CURRENT, (A) Ti=150℃ 1 Tj=125℃ 0.1 Tj=25℃ Tj=25℃, f=1MHz, Level=1V 10 0.01 10 100 1 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 1 REVERSE VOLTAGE, (V) INSTANTANEOUS FORWARD VOLTAGE, (V) FIG.6_NON-REPETITIVE SURGE CURRENT FIG.5- TYPICAL REVERSE CHARACTERISTICS 1000 1000 Tj=150°C INSTANTANEOUS REVERSE CURRENT, (uA) PEAK FORWARD SURGE CURRENT, (A) 100 Tj=25℃ Tj=125℃ 10 100 Tj=75°C 1 Tj=25℃ Tj=125℃ 0.1 Sine Wave Square Wave - - - - -0.01 10 0 200 400 600 800 1000 1200 1 10 PERCENT OF RATED PEAK REVERSE VOLTAGE, (V) tp, (ms)

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