LITE ON SEMICONDUCTOR

GBJ804 thru GBJ810

Q

(3.0) x 45° All Dimensions in millimeter

REVERSE VOLTAGE - 400 to 1000 Volts **GLASS PASSIVATED BRIDGE RECTIFIERS** FORWARD CURRENT - 8.0 Amperes GBJ **FEATURES** • Rating to 1000V PRV GBJ • Ideal for printed circuit board MAX. DIM. MIN. • Low forward voltage drop, high current capability. А 29.70 30.30 • Reliable low cost construction utilizing molded plastic В 20.30 19.70 technique results in inexpensive product С 17.0 18.0 4.90 • The plastic material has UL flammability classification Q D 4.70 G Е 11.20 10.80 94V-0 F 2.30 2.70 • UL Recognition File # E95060 G 3.10Ø 3.40Ø н 3.40 3.80 Т 4.40 4.80 **MECHANICAL DATA** J 2.50 2.90 Κ 0.80 0.60 • Polarity : Symbols molded on body к 2.00 2.40 Т • Weight : 0.23 ounces, 6.6 grams Μ 0.90 1.10 Mounting position : Any 10.20 9.80 Ν 0 7.30 7.70 Ρ 3.80 4.20

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	GBJ 804	GBJ 806	GB. 808	-	GBJ 810	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	400	600	800)	1000	V
Maximum RMS Voltage	VRMS	280	420	560)	700	V
Maximum DC Blocking Voltage	VDC	400	600	800)	1000	V
Maximum Average Forward (with heatsink Note 2) Rectified Current @Tc=110°C (without heatsink)		8.0 2.9					A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	IFSM	170					A
Maximum forward Voltage at 4.0A DC	VF	1.0					V
	lR	5.0 500					uA
I ² t Rating for fusing (t < 8.3ms)	l ² t	120					A ² S
Typical Junction Capacitance per element (Note 1)	Сл	55					pF
Typical Thermal Resistance (Note 2)	Rejc	2.0					°C/W
Operating Temperature Range	TJ	-55 to +150					°C
Storage Temperature Range	Тѕтс	-55 to +150				°C	
NOTES : 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.					REV. 5, Sep-2010, KBDG02		

NOTES : 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC. 2. Device mounted on 100mm x 100mm x 1.6mm Cu Plate Heatsink.

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RATING AND CHARACTERISTIC CURVES GBJ804 thru GBJ810

FIG.1 - FORWARD CURRENT DERATING CURVE FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT PEAK FORWARD SURGE CURRENT, AMPERES 180 8.0 AVERAGE FORWARD CURRENT AMPERES WITH HEATSINK 160 7.0 140 6.0 120 5.0 100 4.0 80 WITHOUT HEATSINK 60 3.0 40 2.0 SINGLE PHASE HALF WAVE 60Hz 20 RESISTIVE OR INDUCTIVE LOAD Single Half-Sine-Wave 0 1.0 1 2 50 20 40 60 80 100 120 140 100 CASE TEMPERATURE ,°C NUMBER OF CYCLES AT 60Hz FIG.3 - TYPICAL JUNCTION CAPACITANCE FIG.4 - TYPICAL FORWARD CHARACTERISTICS 100 100 TJ = 125℃ CAPACITANCE, (pF) 10 10 TJ = 25℃ 1 TJ = 25°C, f = 1MHz PULSE WIDTH 300us 1.0 0.1 1.0 4.0 10.0 100 0.2 0.4 0.6 0.8 1 1.2 1.4 REVERSE VOLTAGE , VOLTS INSTANTANEOUS FORWARD VOLTAGE, VOLTS FIG.5 - TYPICAL REVERSE CHARACTERISTICS 1000 INSTANTANEOUS REVERSE CURRENT, (uA) TJ = 125 C 100 -TJ = 100 C 10 . TJ = 50℃ 1.0 J = 25℃ 0.1 20 40 100 60 80 0 PERCENT OF RATED PEAK REVERSE VOLTAGE, (%)

LITEON



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