LITE-ON SEMICONDUCTORS

GBU15JL

GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE – 600Volts
FORWARD CURRENT – 15 Amperes

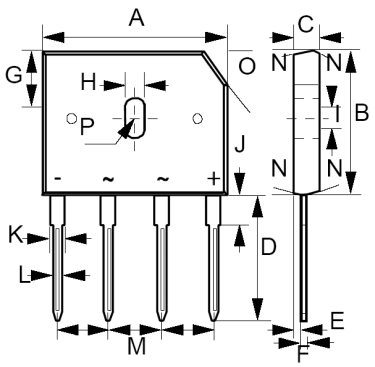
FEATURES

- Low forward Voltage (VF) Drop performance
- High Thermal Radiation
- High Average Current
- High Surge Current Capability
- UL Recognition file # E95060

MECHANICAL DATA

- Case: GBU
- Case Material: "Green" molding compound , UL flammability classification 94V-0,(No Br. Sb. Cl)
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Lead free plating (Tin finish), Solderable per MIL-STD-202, Method 208
- Polarity indicator: As marked on the body
- Weight: 0.15 ounces, 4.0 grams
- Component in accordance to RoHs 2002/95/EC

GBU



GBU		
DIM.	MIN.	MAX.
A	21.80	22.30
B	18.30	18.80
C	3.30	3.56
D	17.50	18.00
E	0.76	1.00
F	0.46	0.56
G	7.40	7.90
H	3.50	4.10
I	1.65	2.16
J	2.25	2.75
K	1.95	2.35
L	1.02	1.27
M	4.83	5.33
N	7.0° TYPICAL	
O	3.2 x 45°	
P	1.90 RADIUS	
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Ratings at 25℃ ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PARAMETER		SYMBOL	GBU15JL	UNIT
Device marking code		Note	GBU15JL	---
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	600	V
Average Rectified Output Current	With heatsink Tc=115℃ Without heatsink Tc=115℃	$I_{F(AV)}$	15 3.7	A
Peak Forward Surge Current 8.3ms single half sine-wave	@ T_J = 25 ℃ @ T_J = 125℃	I_{FSM}	200 160	A
Peak Forward Surge Current 1.0ms single half sine-wave	@ T_J = 25 ℃ @ T_J = 125℃	I_{FSM}	400 320	A
I^2t Rating for fusing (3ms≦t ≦8.3ms)		I^2t	106	A^2S
Storage temperature range		T_{STG}	-55 to +150	°C
Operating junction temperature range		T_J	-40 to +150	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITIONS		SYMBOL	Min.	Typ.	Max.	UNIT
Breakdown voltage	IR=10uA	Tj=25°C	V_B	600	---	---	V
Forward Voltage (1)	IF=7.5A	Tj=25°C	V_F	---	0.86	0.90	V
Leakage Current	VR=600V	Tj=25°C	I_R	---	---	10	uA
Typical Junction Capacitance per element (Note 1)			Cj		80		pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	Typical	UNIT
Typical Thermal Resistance (without Heatsink)	$RthJ_C$ $RthJ_L$ $RthJ_A$	6 26 10	°C/W
Typical thermal resistance (Note2)	$RthJ_C$ $RthJ_L$ $RthJ_A$	1.3 3 5	°C/W

Note : (1) 300us Pulse Width, 2% Duty Cycle.
(2) Thermal Resistance Junction to Case, device mounted on 200 x 200 x 2 mm copper plate.
(3) Thermal Resistance Junction to Lead, device mounted on 200 x 200 x2 mm copper plate.

REV. 2, Nov-2019, KBDJ49

RATING AND CHARACTERISTIC CURVES
GBU15JL

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FIG.1- FORWARD CURRENT DERATING CURVE

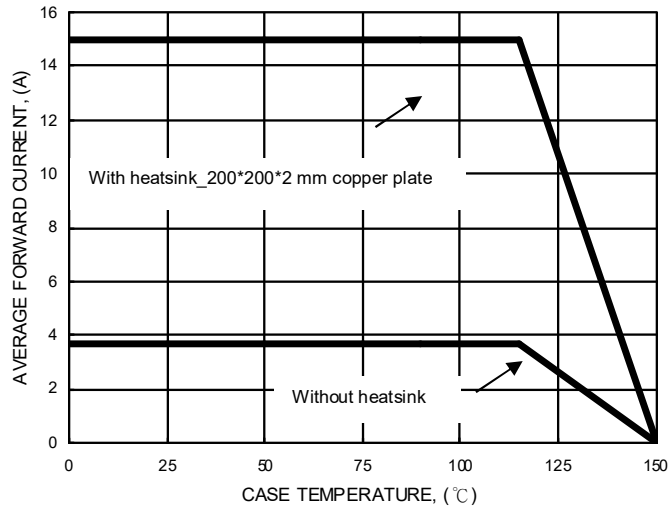


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

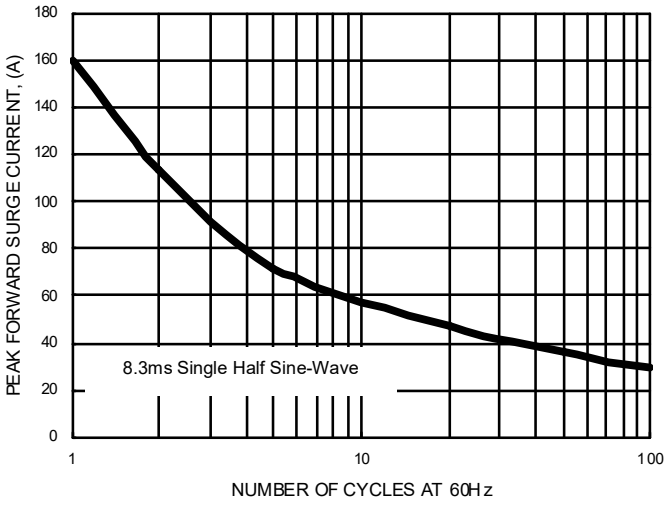


FIG.3- TYPICAL FORWARD CHARACTERISTICS

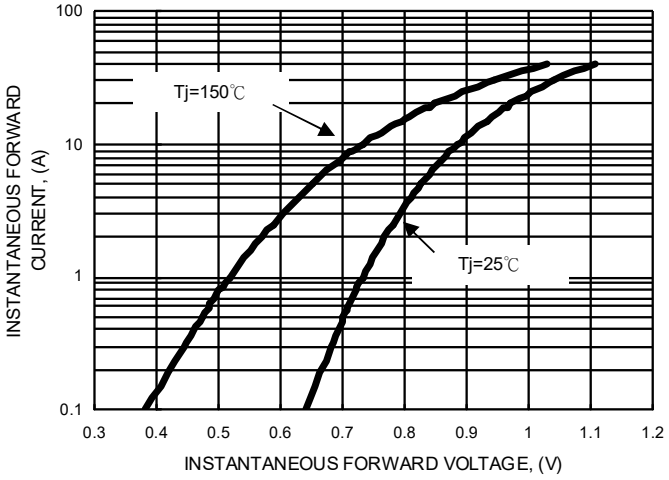


FIG.4- TYPICAL JUNCTION CAPACITANCE

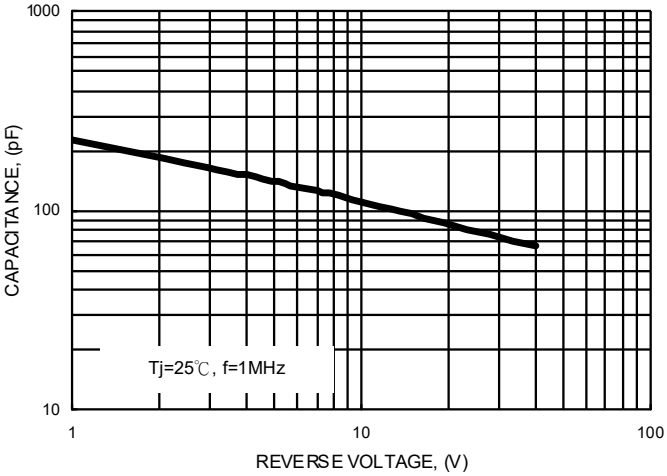


FIG.5- TYPICAL REVERSE CHARACTERISTICS

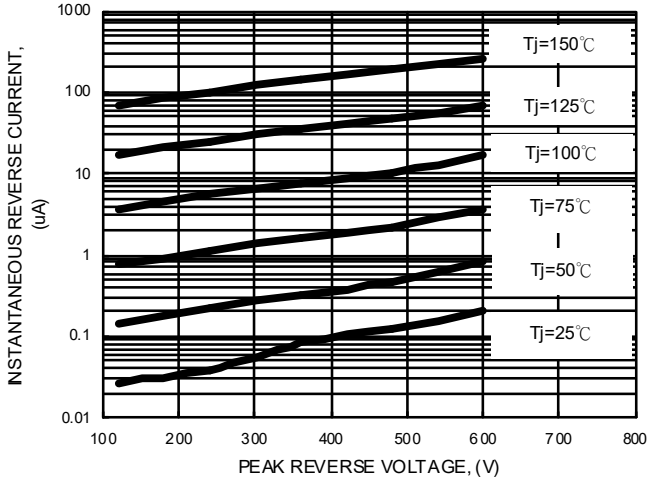


FIG.6- FORWARD POWER DISSIPATION

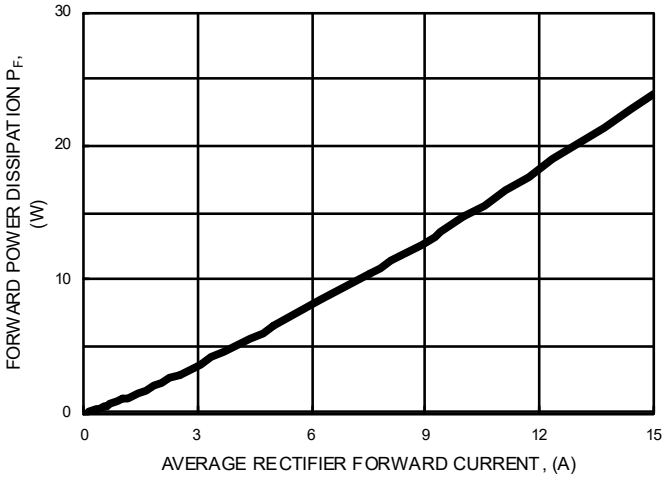
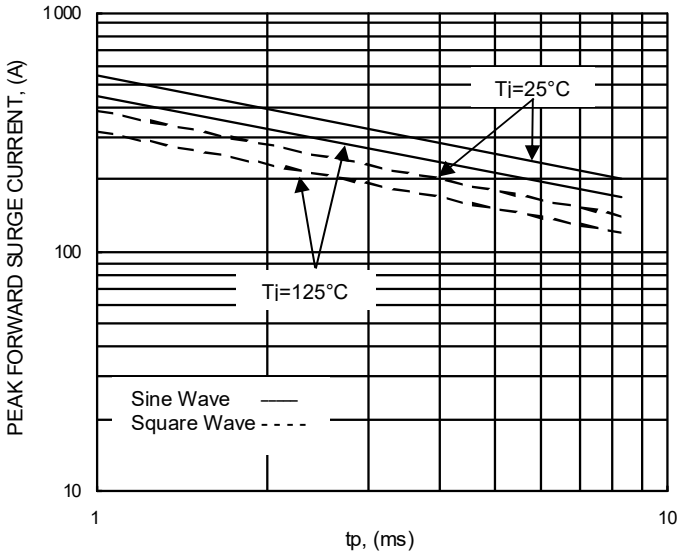


FIG.7_NON-REPETITIVE SURGE CURRENT



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