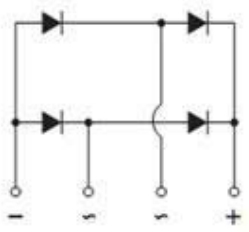
15A, 600V - 800V
Low VF, Low Noise Single-Phase Single In-Line Bridge Rectifiers

FEATURES

- Low forward drop enhance the efficiency
- Oxide planar chip junction
- High surge current capability
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21

GBU



MECHANICAL DATA

Case: GBU

Molding compound, UL flammability classification rating 94V-0

Part No. with suffix "H" means AEC-Q101 qualified

Packing code with suffix "G" means green compound (halogen-free)

Terminal: Matte tin plated leads, solderable per JESD22-B102

Polarity: As marked

Weight: 4 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)							
PARAMETER		SYMBOL	GBU15L05		GBU15L06		UNIT
Maximum repetitive peak reverse voltage		V_{RRM}	600		800		V
Maximum RMS voltage		V_{RMS}	420		560		V
Maximum DC blocking voltage		V_{DC}	600		800		V
Maximum average forward rectified current		$I_{F(AV)}$	15				A
Peak forward surge current, 8.3 ms single half sine-wave		I_{FSM}	200				A
Peak forward surge current, 1.0 ms single half sine-wave		I_{FSM}	630				A
Rating of fusing (t<8.3ms)		I^2t	166				A^2s
Maximum Instantaneous Forward Voltage		V_F	TYP	MAX	TYP	MAX	V
I_F= 7.5 A (Note 1)	T_J=25°C		0.87	0.90	0.93	0.96	
	T_J=125°C		0.75	-	-	-	
Maximum reverse current @ rated V_R	T_J=25°C	I_R	5				μA
	T_J=125°C		150				
Typical thermal resistance		$R_{\theta JC}$ $R_{\theta JA}$	3 15				°C/W
Operating junction temperature range		T_J	- 55 to +150				°C
Storage temperature range		T_{STG}	- 55 to +150				°C

Note 1: Pulse test with PW=300μs, 1% duty cycle

ORDERING INFORMATION					
PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX (*)	PACKAGE	PACKING
GBU15L0x (Note 1)	H	C2	G	GBU	20 / Tube
		D2			20 / Tube
		X0			Forming

Note 1: "x" defines voltage from 600V (GBU15l05) to 800V (GBU15l06)

*: Optional available

EXAMPLE					
PREFERRED P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
GBU15L05HD2G	GBU15L05	H	D2	G	AEC-Q101 qualified Green compound

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

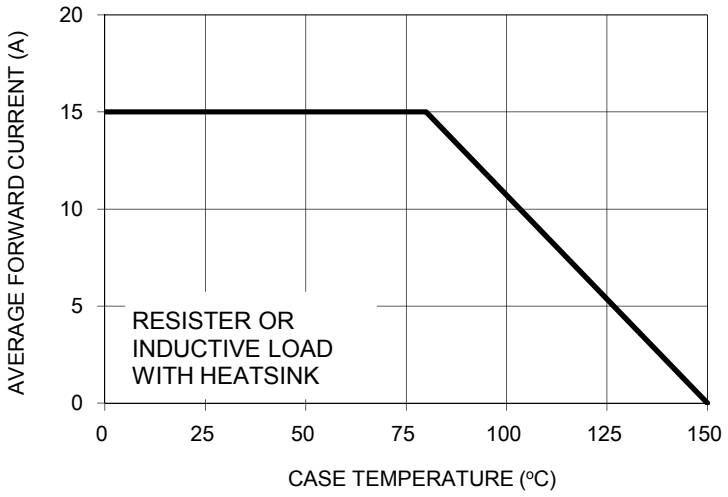


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

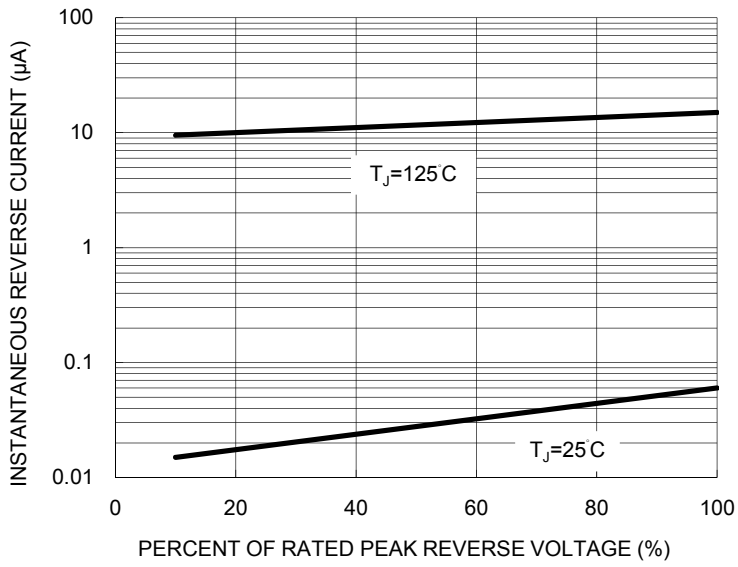


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

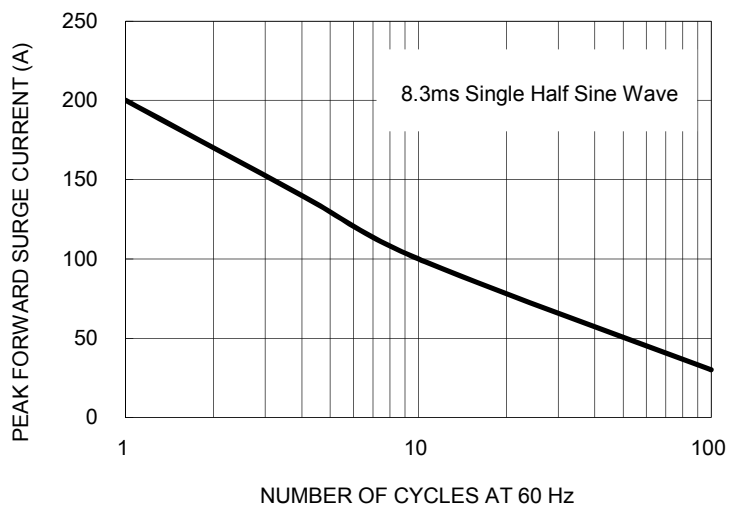


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

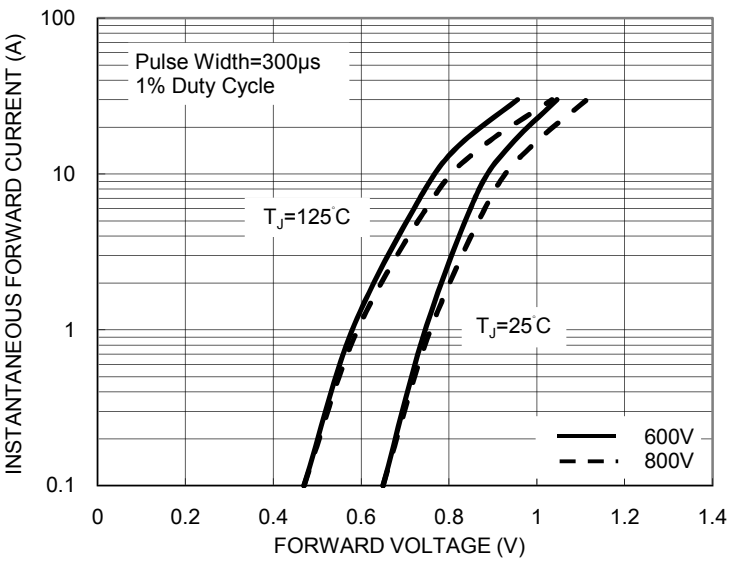
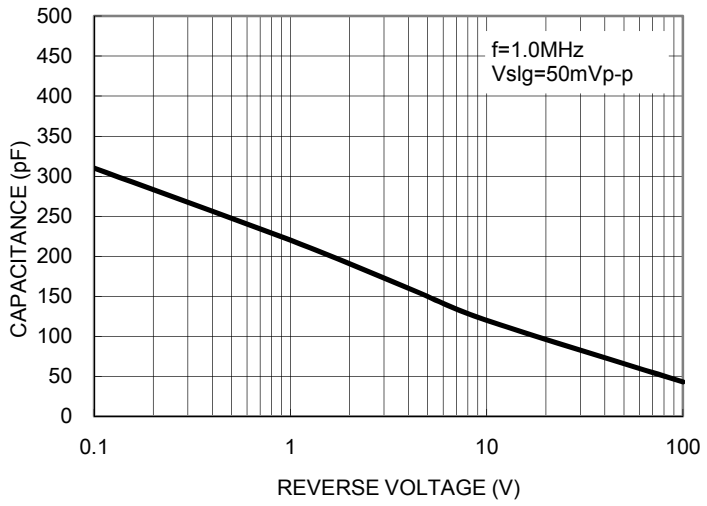
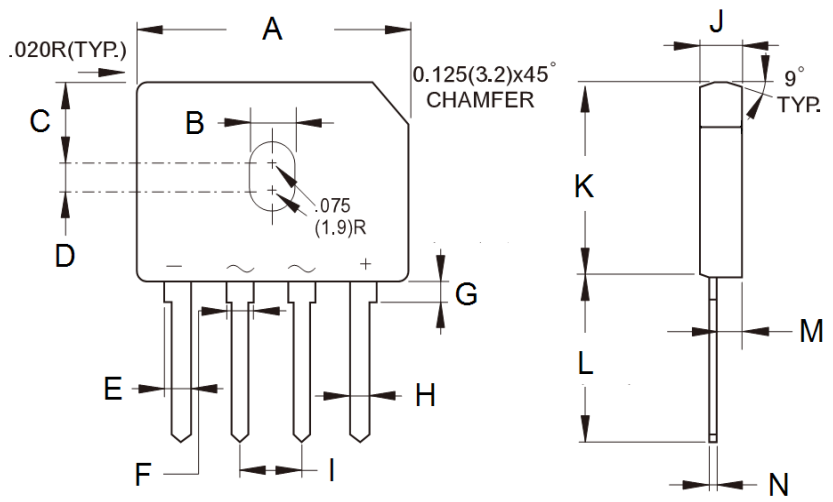


FIG. 5 TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS

GBU



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	21.80	22.30	0.858	0.878
B	3.50	4.10	0.138	0.161
C	7.40	7.90	0.291	0.311
D	1.65	2.16	0.065	0.085
E	2.16	2.54	0.085	0.100
F	1.65	2.03	0.065	0.080
G	1.52	2.03	0.060	0.080
H	1.02	1.27	0.040	0.050
I	4.83	5.33	0.190	0.210
J	3.30	3.56	0.130	0.140
K	18.30	18.80	0.720	0.740
L	17.50	18.00	0.689	0.709
M	1.90	2.16	0.075	0.085
N	0.46	0.56	0.018	0.022

MARKING DIAGRAM

P/N = Specific Device Code
G = Green Compound
YW = Date Code
F = Factory Code

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