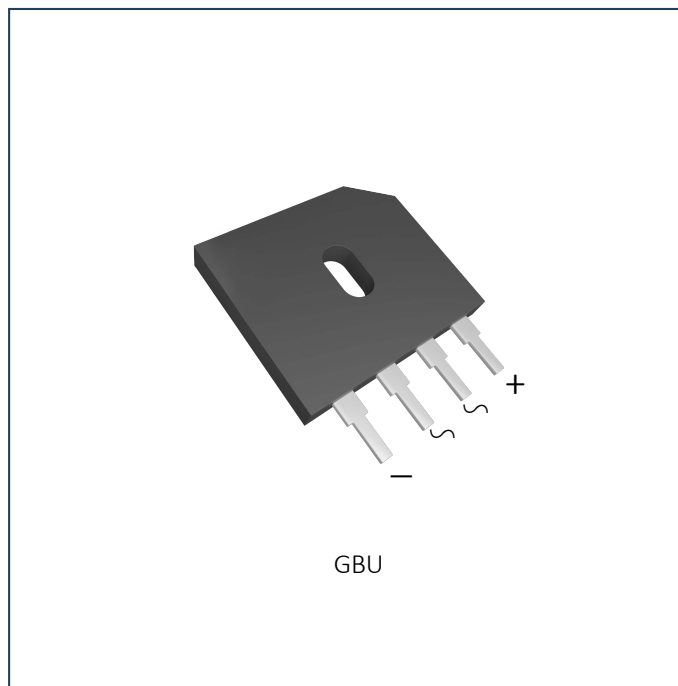


GBU1506H

快恢复桥式整流器

Fast Recovery Bridge Rectifier

封装外形 Package



机械数据 Mechanical Data

- 超快恢复时间 Ultra-fast recovery time
- 高浪涌电流能力 High surge current capability
- 低漏电流 Low leakage current
- 符合 RoHS 指令 2011/65/EU
Compliant to RoHS directive 2011/65/EU
- 焊料浸渍温度最高为 275°C，持续 7 秒
Solder dip 275 °C max. 7 s

主要参数 Device summary

Symbol	Value
$I_F(AV)$	15A
V_{RRM}	600V
$V_F(typ)$	1.15V@7.5A 125°C
$I_R(typ)$	0.05mA@600V 125°C
$T_J(max)$	150°C

产品特点 Features

- 模塑料符合 UL 94 V-0 易燃等级，符合 RoHS 标准
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- 端子: 镀锡引线, 可焊接 J-STD-002 和 JESD22-B102
Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- 极性: 本体标记
Polarity: As marked on body

最大额定值 Maximum ratings($T_a=25^{\circ}\text{C}$)

项目 Parameter	符号 Symbol	数值 Value	单位 Unit
反向重复峰值电压 Peak repetitive reverse voltage	V_{RRM}	600	V
正向电流 Forward current	I_F	带散热片 $T_c=110^{\circ}\text{C}$ With heatsink $T_c=110^{\circ}\text{C}$	A
		不带散热片 $T_c=25^{\circ}\text{C}$ Without heatsink $T_c=25^{\circ}\text{C}$	
浪涌电流 Non-repetitive single pulse surge current $t=8.3\text{ms}$	I_{FSM}	180	A
结温 Junction temperature	T_j	$-55\sim+150$	$^{\circ}\text{C}$
存储温度 Storage temperature	T_{STG}	$-55\sim+150$	$^{\circ}\text{C}$
绝缘电压 (端子至外壳交流 1 分钟) Dielectric strength(terminal to case AC 1 minute)	V_{dis}	2500	V
安装扭矩 Mounting torque@Recommend torque: $5\text{kg}\cdot\text{cm}$	T_{or}	8	$\text{kg}\cdot\text{cm}$

电特性 Electrical characteristics($T_a=25^{\circ}\text{C}$)

项目 Parameter	测试条件 Tests conditions		数值 Value			单位 Unit
			最小值 (min)	典型值 (typ)	最大值 (max)	
V_{RRM} 反向电压	$I_R=0.05\text{mA}$		600	-	-	V
I_R 反向漏电	$T_j=25^{\circ}\text{C}$	$V_R=V_{RRM}$	-	-	0.03	mA
	$T_j=125^{\circ}\text{C}$		-	-	0.75	
V_F 正向电压	$T_j=25^{\circ}\text{C}$	$I_F=7.5\text{A}$	-	-	1.8	V
	$T_j=100^{\circ}\text{C}$	$I_F=3.75\text{A}$	-	1.11	-	
		$I_F=7.5\text{A}$	-	1.21	-	
	$T_j=125^{\circ}\text{C}$	$I_F=3.75\text{A}$	-	0.95	-	
		$I_F=7.5\text{A}$	-	1.15	-	
T_{rr} 反向恢复时间	$T_j=25^{\circ}\text{C}$	Reverse recovery condition $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$	-	-	60	nS

热特性 Thermal characteristics($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
结到环境热阻 (无散热片) Junction to ambient thermal resistance(without heatsink)	$R_{th(j-a)}$	20	$^{\circ}\text{C}/\text{W}$
结到管壳热阻 (有散热片) Thermal resistance from junction to case(with heatsink)	$R_{th(j-c)}$	1.2	$^{\circ}\text{C}/\text{W}$

典型特征图 Typical Characteristics

图 1: 正向电流与外壳温度

FIG 1: I_F - T_C

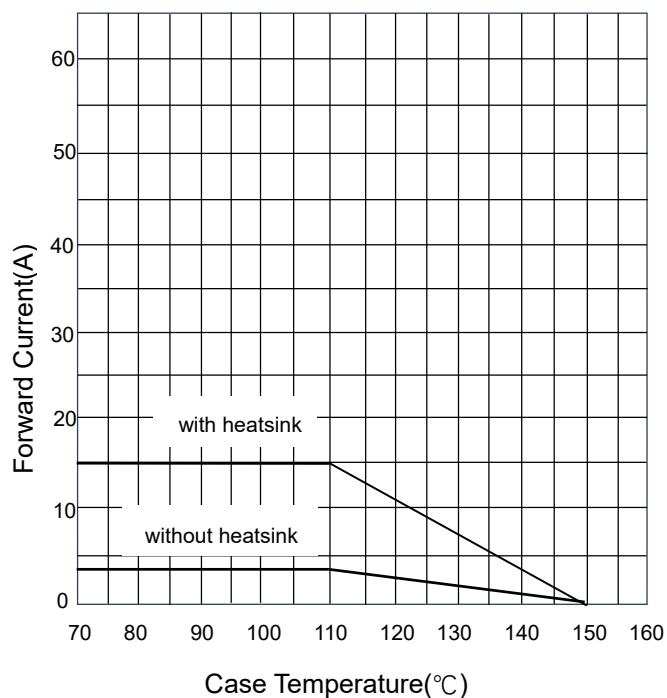


图 2: 正向浪涌循环次数

FIG 2: Surge Forward Current Capability

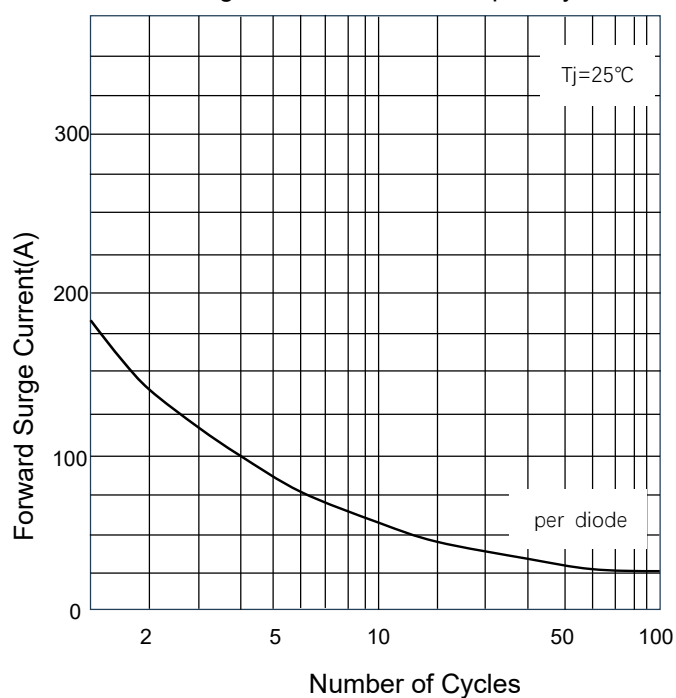


图 3: 反向电压与反向电流

FIG 3: V_R - I_R

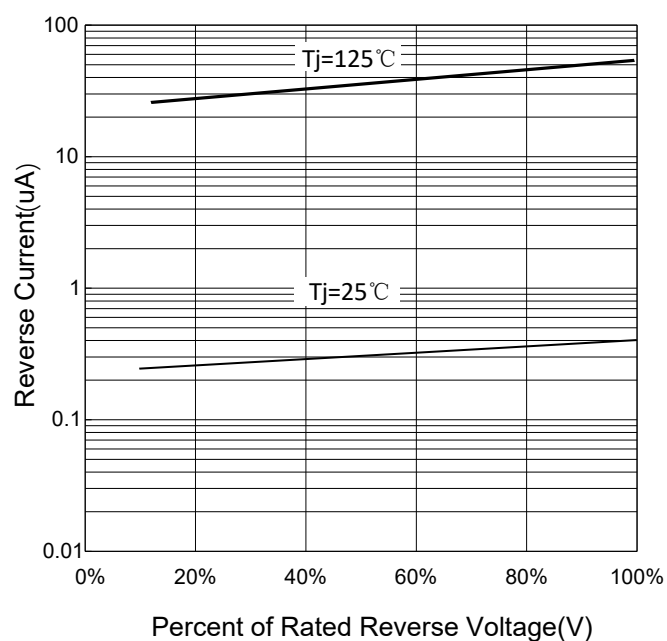
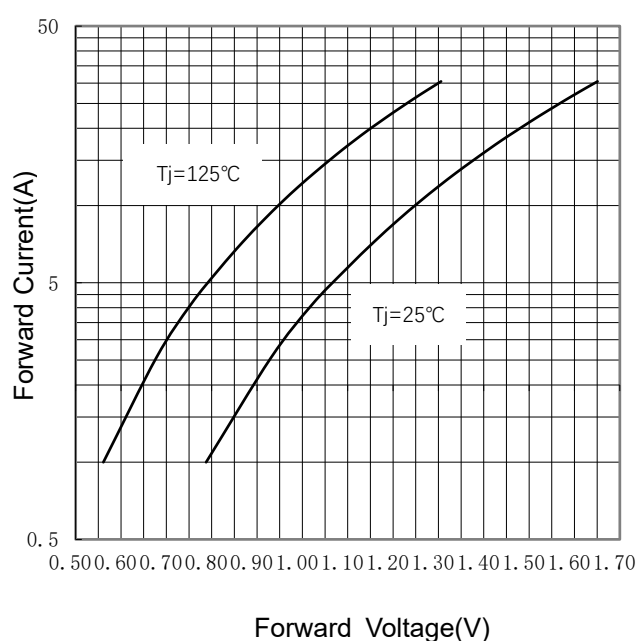


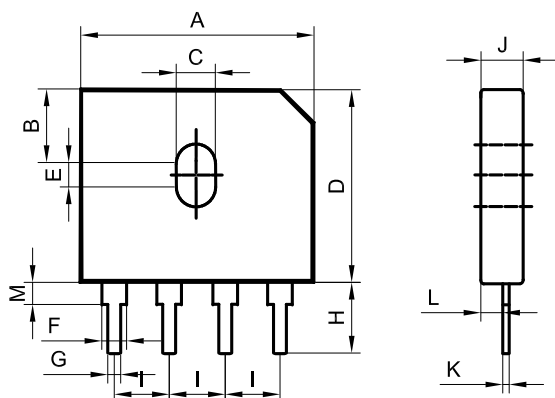
图 4: 正向电流与正向电压

FIG 4: I_F - V_F



外形尺寸 Outline Dimensions

GBU-C40



Dim	Min	Typ	Max
A	21.80	22.00	22.20
B	7.60	7.80	8.00
C	3.50	3.80	4.10
D	18.30	18.50	18.70
E	1.70	1.90	2.10
F	2.05	2.30	2.55
G	1.00	1.15	1.30
H	5.90	6.20	6.50
I	4.90	5.00	5.10
J	3.30	3.40	3.50
K	0.35	0.45	0.55
L	1.90	2.10	2.30
M	1.90	2.2	2.50
尺寸单位: (mm) Dimensions in millimeters			

订购信息 Ordering Information

订单型号 Order code	印记 Marking	封装 Package	重量 Weight (g)	包装形式 Packing	基本包装 Base qty (pcs)	盒 Box (pcs)	箱 Carton (pcs)
CGBU1506HC40B	GBU1506H	GBU	3.8	盒装 Box	250	250	5000

注 note:

★. "C40"为短脚，详见外形尺寸。 "C40" means short pin, the size is shown in the Outline Dimensions.

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