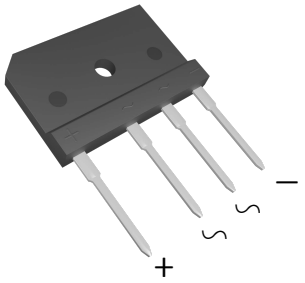
GBJ5010

标准整流桥

Standard Bridge Rectifier

封装外形 Package



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主要参数 Device summary

Symbol	Value
$I_{F(AV)}$	50A
V_{RRM}	1000V
$V_{F(typ)}$	0.88V@25A 125℃
$I_{R(typ)}$	0.05mA@V_{RRM} 125℃
$T_{j(max)}$	150℃

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

机械数据 Mechanical Data

- 玻璃钝化芯片
  Glass passivated chip
- 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℃，持续 7 秒
  Solder dip 275 °C max. 7 s

最大额定值 Maximum ratings(Ta=25℃)

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}	1000	V
正向电流 Forward current	带散热片 Tc=110℃ With heatsink Tc=110℃	I_F	50	A
	不带散热片 Tc=25℃ Without heatsink Tc=25℃		5.2	
浪涌电流 Non-repetitive single pulse surge current t=8.3ms		I_{FSM}	450	A
结温 Junction temperature		T_j	-55~+150	℃
存储温度 Storage temperature		T_{STG}	-55~+150	℃
绝缘电压（端子至外壳交流 1 分钟） Dielectric strength(terminals to case AC 1 minute)		V_{dis}	2500	V
安装扭矩 Mounting torque@Recommend torque：5kg·cm		T_{or}	8	kg·cm

电特性 Electrical characteristics(Ta=25℃)

项目 Parameter	测试条件 Tests conditions		数值 Value 最小值 (min)	典型值 (typ)	最大值 (max)	单位 Unit
V_{RRM} 反向电压	I_R=0.05mA		1000	-	-	V
I_R 反向漏电	T_j=25℃	V_R=V_{RRM}	-	-	0.03	mA
	T_j=125℃		-	-	0.6	
V_F 正向电压	T_j=25℃	I_F=25A	-	-	1.1	V
	T_j=100℃	I_F=1A	-	0.67	-	
		I_F=25A	-	0.91	-	
	T_j=125℃	I_F=1A	-	0.63	-	
		I_F=25A	-	0.88	-	

热特性 Thermal characteristics(Ta=25℃)

Parameter	Symbol	Value	Unit
结到环境热阻（无散热片） Junction to ambient thermal resistance(without heatsink)	$R_{th(j-a)}$	18	℃/W
结到管壳热阻（有散热片） Thermal resistance from junction to case(with heatsink)	$R_{th(j-c)}$	1.0	℃/W

典型特征图 Typical Characteristics

图 1：正向电流与外壳温度 FIG 1:IF-Tc

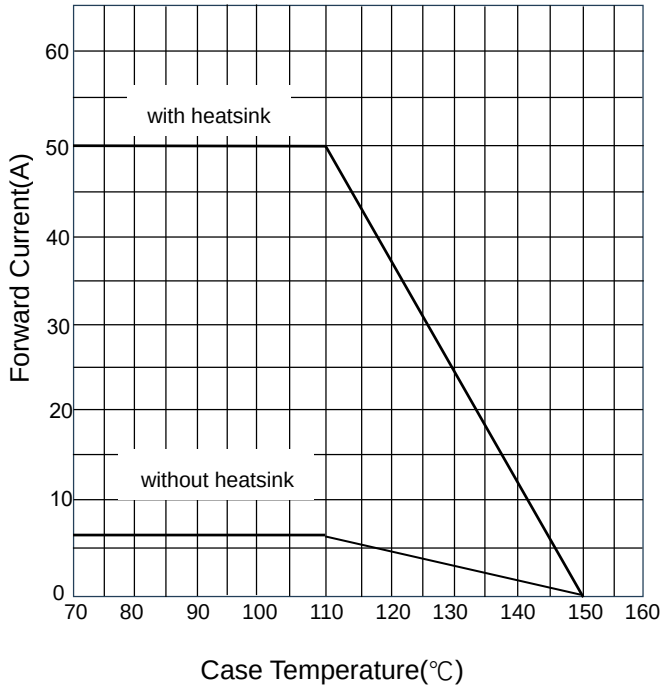


图 2：正向浪涌循环次数 FIG 2:Surge Forward Current Capability

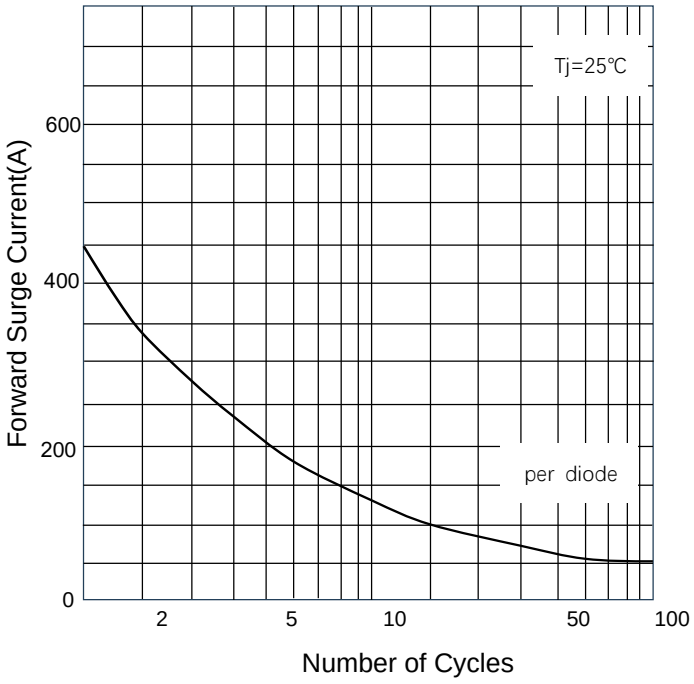


图 3：反向电压与反向电流 FIG 3:VR-IR

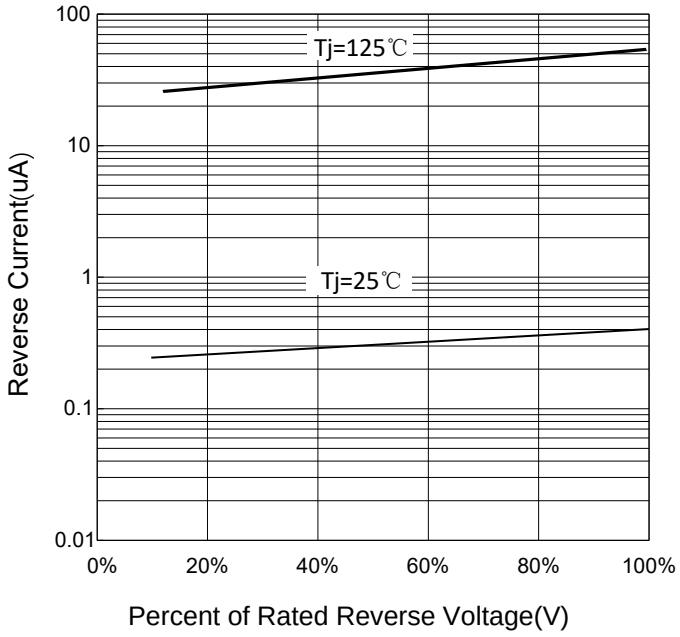
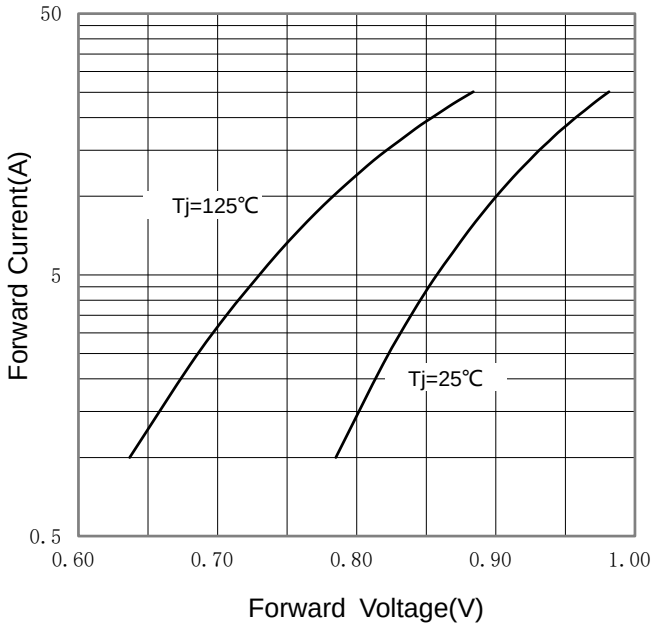


图 4：正向电流与正向电压 FIG 4:IF-VF



外形尺寸 Outline Dimensions

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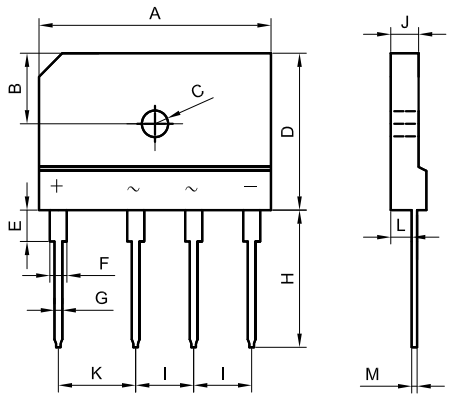
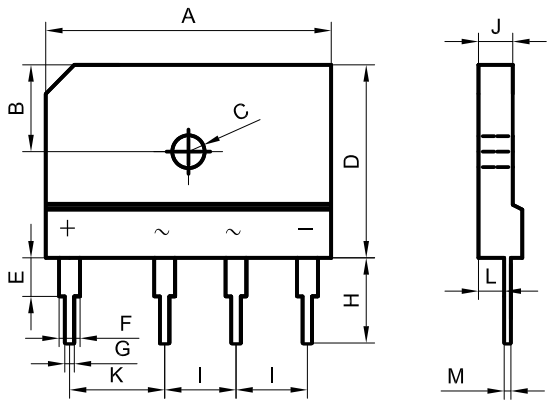


Dim	Min	Typ	Max
A	29.50	30.00	30.50
B	8.80	9.00	9.20
C	3.10	3.25	3.40
D	19.50	20.00	20.50
E	3.00	3.40	3.80
F	2.00	2.20	2.40
G	0.90	1.00	1.10
H	17.00	17.50	18.00
I	7.30	7.50	7.70
J	3.40	3.60	3.80
K	9.80	10.00	10.20
L	2.50	2.70	2.90
M	0.50	0.60	0.70

尺寸单位：（mm）
Dimensions in millimeters

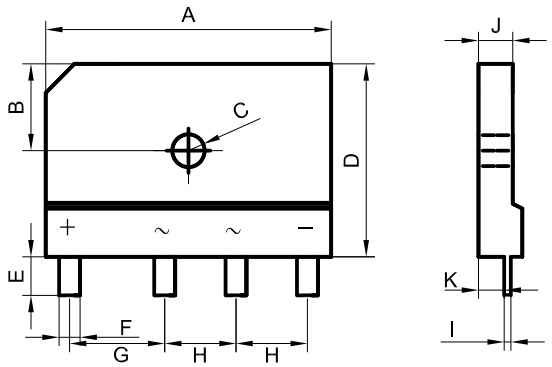
GBJ-C40



Dim	Min	Typ	Max
A	29.50	30.00	30.50
B	8.80	9.00	9.20
C	3.10	3.25	3.40
D	19.50	20.00	20.50
E	3.00	3.40	3.80
F	2.00	2.20	2.40
G	0.90	1.00	1.10
H	7.80	8.00	8.20
I	7.30	7.50	7.70
J	3.40	3.60	3.80
K	9.80	10.00	10.20
L	2.50	2.70	2.90
M	0.50	0.60	0.70

尺寸单位：（mm）
Dimensions in millimeters

GBJ-D35



Dim	Min	Typ	Max
A	29.50	30.00	30.50
B	8.80	9.00	9.20
C	3.10	3.25	3.40
D	19.50	20.00	20.50
E	3.00	3.50	4.00
F	2.00	2.20	2.40
G	9.80	10.00	10.20
H	7.30	7.50	7.70
I	0.50	0.60	0.70
J	3.40	3.60	3.80
K	2.50	2.70	2.90

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)
CGBJ5010000B	GBJ5010	GBJ	7.1	盒装 Box	250	250	2000
CGBJ5010C40B	GBJ5010	GBJ	7.0	盒装 Box	250	250	2000
CGBJ5010D35B	GBJ5010	GBJ	7.0	盒装 Box	250	250	2000

注 note:

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

*. “D35”为短脚，详见外形尺寸。 "D35" means short pin, the size is shown in the Outline Dimensions.

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