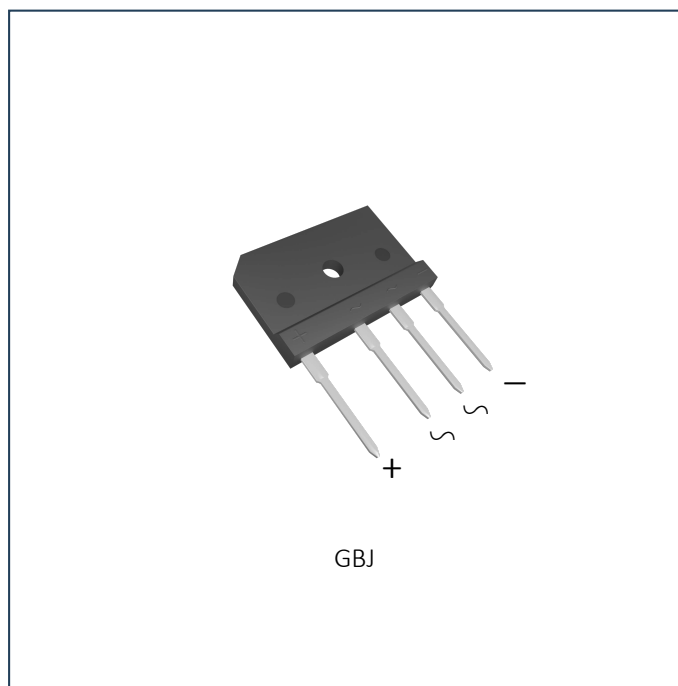


GBJ5010

标准整流桥

Standard Bridge Rectifier

封装外形 Package



主要参数 Device summary

Symbol	Value
$I_F(AV)$	50A
V_{RRM}	1000V
$V_F(typ)$	0.88V@25A 125°C
$I_R(typ)$	0.05mA@ V_{RRM} 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

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°C, 持续 7 秒
Solder dip 275 °C max. 7 s

最大额定值 Maximum ratings(Ta=25°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}	1000	V
正向电流 Forward current	I _F	带散热片 T _c =110°C With heatsink T _c =110°C 50	A
		不带散热片 T _c =25°C Without heatsink T _c =25°C 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	°C
存储温度 Storage temperature	T _{STG}	-55~+150	°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: 5kg·cm	T _{or}	8	kg·cm

电特性 Electrical characteristics(Ta=25°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 =0.05mA		1000	-	-	V
I _R 反向漏电流	T _j =25°C	V _R =V _{RRM}	-	-	0.03	mA
	T _j =125°C		-	-	0.6	
V _F 正向电压	T _j =25°C	I _F =25A	-	-	1.1	V
	T _j =100°C	I _F =1A	-	0.67	-	
		I _F =25A	-	0.91	-	
	T _j =125°C	I _F =1A	-	0.63	-	
		I _F =25A	-	0.88	-	

热特性 Thermal characteristics(Ta=25°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)}	18	°C/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	°C/W

典型特征图 Typical Characteristics

图 1: 正向电流与外壳温度

度 FIG 1: I_F - T_c

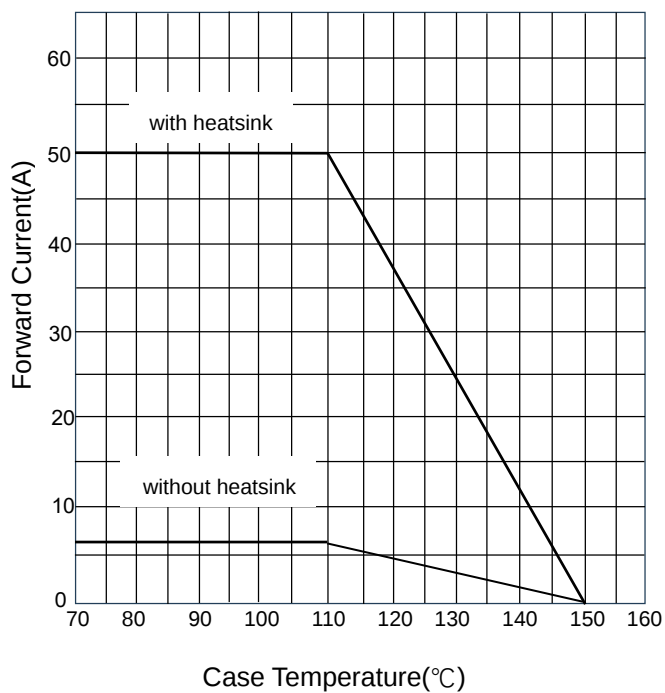


图 2: 正向浪涌循环次数

FIG 2: Surge Forward Current Capability

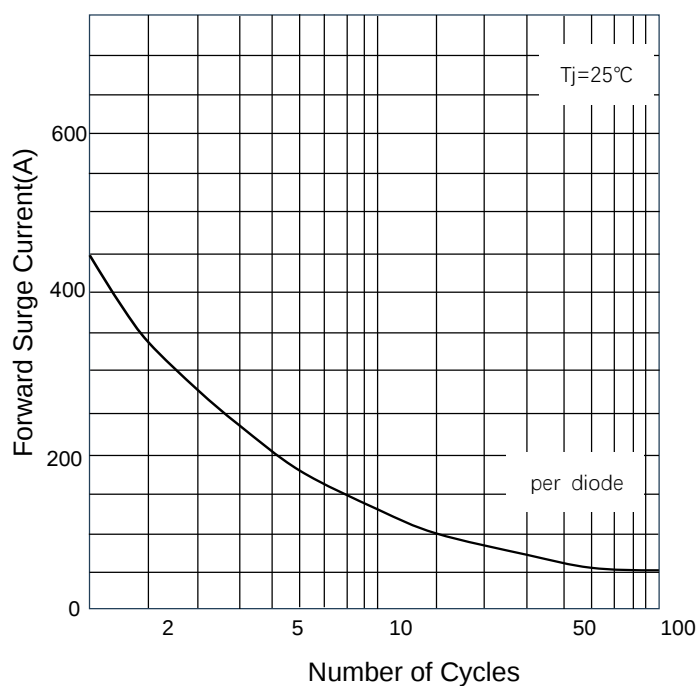


图 3: 反向电压与反向电流

FIG 3: V_R - I_R

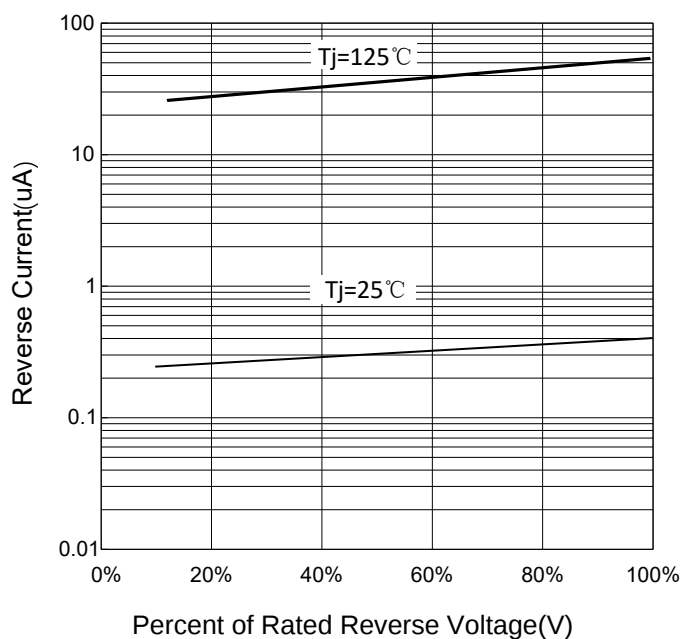
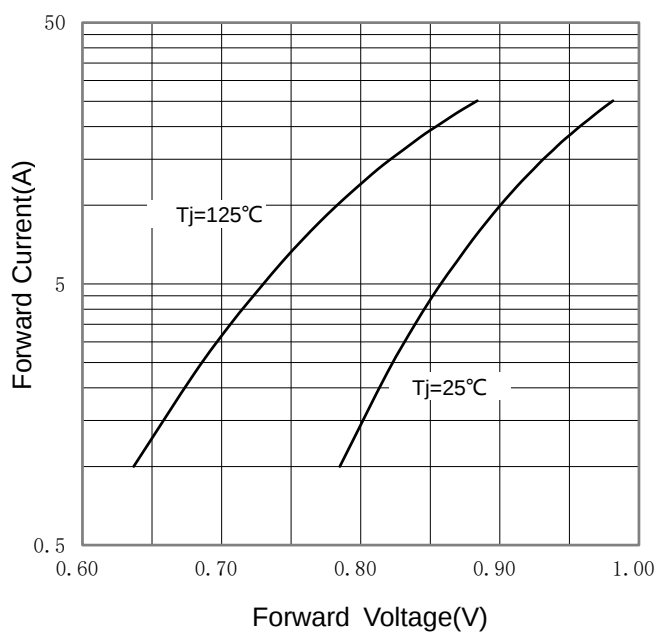


图 4: 正向电流与正向电压

FIG 4: I_F - V_F



外形尺寸 Outline Dimensions

GBJ

Technical drawing of the GBJ package. The top view shows a rectangular package with dimensions A (width) and B (height). A central circular feature is labeled C. The side view shows the package profile with dimensions J (total height), L (height of the main body), and M (height of the base). The bottom view shows four pins with dimensions E (pin height), F (pin width), G (pin spacing), and H (total pin height). The package is marked with a '+' on the left, '~' in the center, and '-' on the right.

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	3.70	4.00	4.30
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	4.40	4.60	4.80
K	9.80	10.00	10.20
L	3.10	3.40	3.10
M	0.50	0.60	0.70

尺寸单位: (mm)
Dimensions in millimeters

GBJ-C40

Technical drawing of the GBJ-C40 package. The top view shows a rectangular package with dimensions A (width) and B (height). A central circular feature is labeled C. The side view shows the package profile with dimensions J (total height), L (height of the main body), and M (height of the base). The bottom view shows four pins with dimensions E (pin height), F (pin width), G (pin spacing), and H (total pin height). The package is marked with a '+' on the left, '~' in the center, and '-' on the right.

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	3.70	4.00	4.30
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	4.40	4.60	4.80
K	9.80	10.00	10.20
L	3.10	3.40	3.10
M	0.50	0.60	0.70

尺寸单位: (mm)
Dimensions in millimeters

GBJ-D35

Technical drawing of the GBJ-D35 package. The top view shows a rectangular package with dimensions A (width) and B (height). A central circular feature is labeled C. The side view shows the package profile with dimensions J (total height), L (height of the main body), and M (height of the base). The bottom view shows four pins with dimensions E (pin height), F (pin width), G (pin spacing), and H (total pin height). The package is marked with a '+' on the left, '~' in the center, and '-' on the right.

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
F	2.00	2.20	2.40
H	3.10	3.50	3.90
I	7.30	7.50	7.70
J	4.40	4.60	4.80
K	9.80	10.00	10.20
L	3.10	3.40	3.10
M	0.50	0.60	0.70

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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