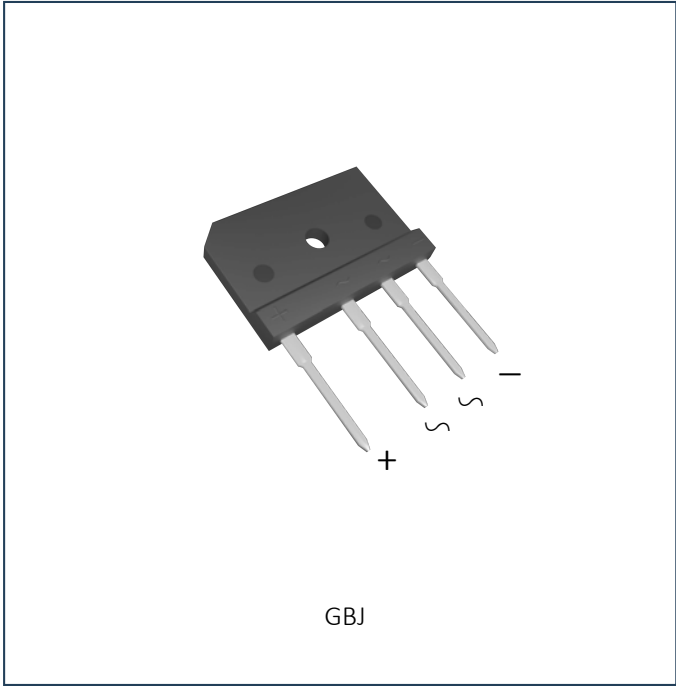


GBJ4006H

快恢复桥式整流器

Fast Recovery Bridge Rectifier

封装外形 Package



主要参数 Device summary

参数	典型值
$I_F(AV)$	40A
V_{RRM}	600V
$V_F(typ)$	1.15V@20A 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

机械数据 Mechanical Data

- 快恢复时间 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

最大额定值 Maximum ratings(Ta=25°C)

项目 Parameter		符号 Symbol	数值 Value	单位 Unit
反向电压 Peak repetitive reverse voltage		V _{RRM}	600	V
正向电流 Forward current	带散热片 T _c =110°C With heatsink T _c =110°C	I _F	40	A
	不带散热片 T _c =25°C Without heatsink T _c =25°C		3.2	
浪涌电流 Non-repetitive single pulse surge current t=8.3ms		I _{FSM}	360	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)	
反向电压 V _{RRM}	I _R =0.05mA		600	-	-	V
反向漏电 I _R	T _j =25°C	V _R =V _{RRM}	-	-	0.03	mA
	T _j =125°C		-	-	0.75	
正向电压 V _F	T _j =25°C	I _F =20A	-	-	1.8	V
	T _j =100°C	I _F =10A	-	1.11	-	
		I _F =20A	-	1.21	-	
	T _j =125°C	I _F =10A	-	0.95	-	
		I _F =20A	-	1.15	-	
反向恢复时间 T _{rr}	T _j =25°C	Reverse recovery condition I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	-	-	60	nS

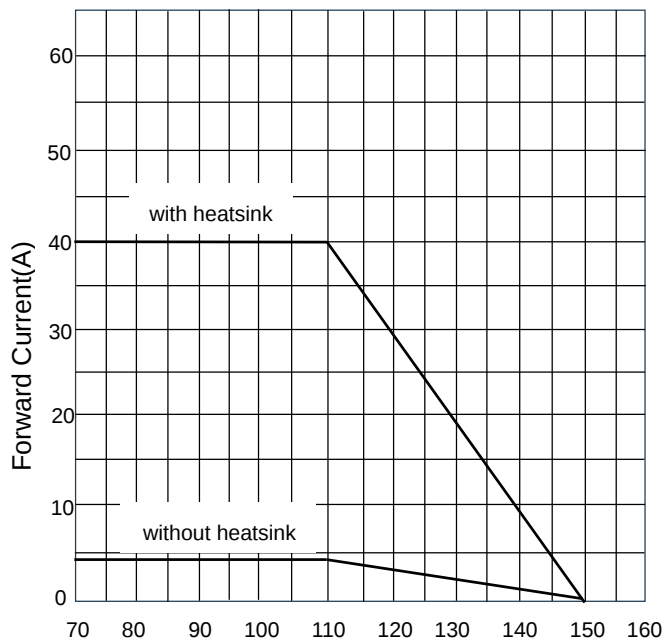
热特性 Thermal characteristics(Ta=25°C)

项目 Parameter	符号 Symbol	数值 Value	单位 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

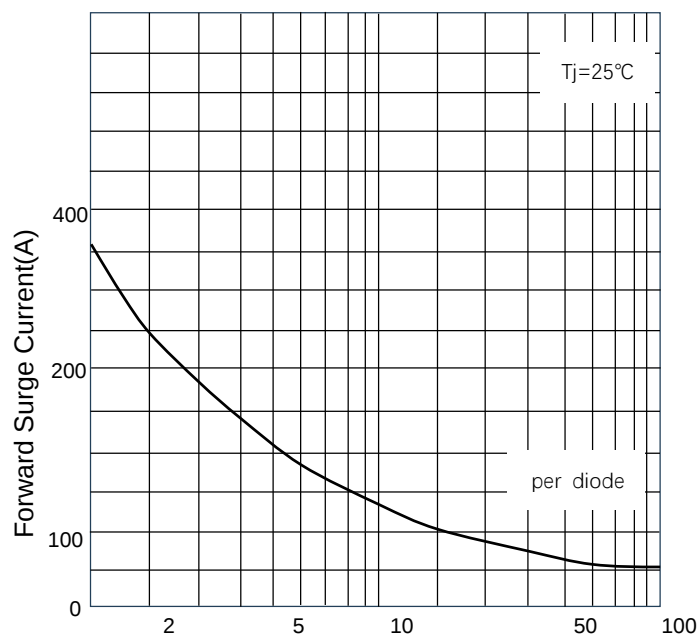
FIG 1: I_F - T_C



Case Temperature(°C)

图 2: 正向浪涌循环次数

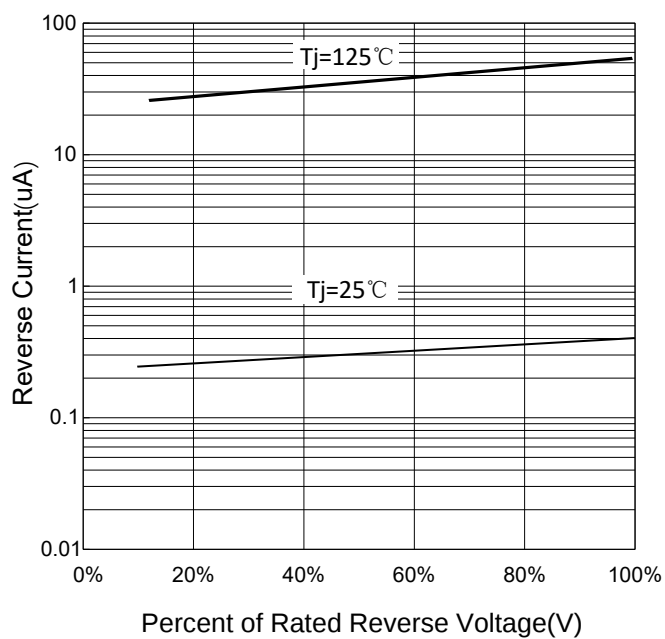
FIG 2: Surge Forward Current Capability



Number of Cycles

图 3: 反向电压与反向电流

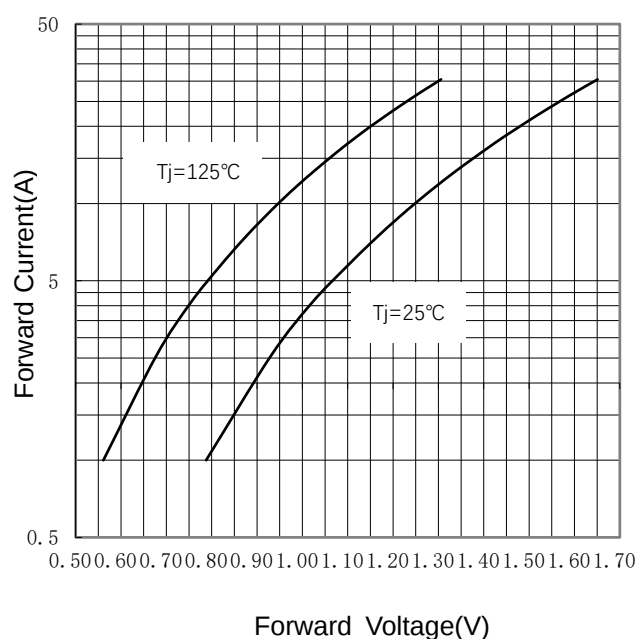
FIG 3: V_R - I_R



Percent of Rated Reverse Voltage(V)

图 4: 正向电流与正向电压

FIG 4: I_F - V_F



Forward Voltage(V)

外形尺寸 Outline Dimensions

GBJ

The diagram shows the mechanical specifications for the GBJ package. The top view is a rectangle with a width of A and a height of D. The top-left corner is chamfered. A central circular feature has a diameter of C. The bottom edge has four pins with a total width of K. The distance between the pins is I. The pin height is H. The pin width is F. The pin thickness is G. The package thickness is E. The side view shows a total height of J and a base thickness of L. The package is mounted on a substrate of thickness M.

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

The diagram shows the mechanical specifications for the GBJ-C40 package. The top view is a rectangle with a width of A and a height of D. The top-left corner is chamfered. A central circular feature has a diameter of C. The bottom edge has four pins with a total width of K. The distance between the pins is I. The pin height is H. The pin width is F. The pin thickness is G. The package thickness is E. The side view shows a total height of J and a base thickness of L. The package is mounted on a substrate of thickness M.

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

The diagram shows the mechanical specifications for the GBJ-D35 package. The top view is a rectangle with a width of A and a height of D. The top-left corner is chamfered. A central circular feature has a diameter of C. The bottom edge has four pins with a total width of K. The distance between the pins is I. The pin height is H. The pin width is F. The pin thickness is G. The package thickness is E. The side view shows a total height of J and a base thickness of L. The package is mounted on a substrate of thickness M.

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	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)
CGBJ4006H000B	GBJ4006H	GBJ	7.1	盒装 Box	250	250	2000
CGBJ4006HC40B	GBJ4006H	GBJ	7.0	盒装 Box	250	250	2000
CGBJ4006HD35B	GBJ4006H	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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