



2SB688 SERIES

用途

- 应用于功率放大器

产品特性

- 高集电极电压: $V_{CE0}=110V$ (min)
 $V_{CE0}=180V$ (min)
- 与 2SD718 互补
- 推荐用于 45-50W 音响频率放大器输出电路
- 环保 (RoHS) 产品

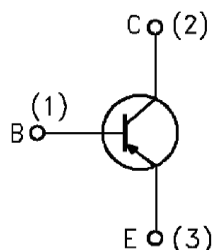
APPLICATIONS

- Power Amplifier Applications

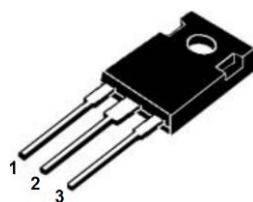
FEATURES

- High collector voltage: $V_{CE0}=110V$ (min)
 $V_{CE0}=180V$ (min)
- Complementary to 2SD718
- Recommended for 45-50W audio frequency amplifier output
- RoHS product

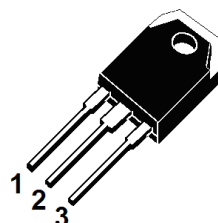
封装 Package



TO-247



TO-3PB



- 1 基极 BASE 3 发射极 EMITTER
2 集电极 (热沉) COLLECTOR (HEAT SINK)

订货信息 ORDER MESSAGE

订货型号 Order codes				印 记 Marking	封 装 Package	器件重量 Weight
有卤-条管 Halogen-Tube	无卤-条管 Halogen Free-Tube	有卤-编带 Halogen-Reel	无卤-编带 Halogen Free-Reel			
2SB688-W-B	N/A	N/A	N/A	2SB688	TO-247	6.00g(typ)
2SB688-AB-B	N/A	N/A	N/A	2SB688	TO-3PB	5.10g(typ)
2SB688A-W-B	N/A	N/A	N/A	2SB688	TO-247	6.00g(typ)
2SB688A-AB-B	N/A	N/A	N/A	2SB688	TO-3PB	5.10g(typ)
2SB688B-W-B	N/A	N/A	N/A	2SB688	TO-247	6.00g(typ)
2SB688B-AB-B	N/A	N/A	N/A	2SB688	TO-3PB	5.10g(typ)
2SB688C-W-B	N/A	N/A	N/A	2SB688	TO-247	6.00g(typ)
2SB688C-AB-B	N/A	N/A	N/A	2SB688	TO-3PB	5.10g(typ)





绝对最大额定值 ABSOLUTE RATINGS (Tc=25°C unless otherwise noted)

项 目 Parameter	符 号 Symbol	数 值 Value				单 位 Unit
		-	A	B	C	
集电极—基极直流电压 Collector- Base Voltage	V _{CB0}	-180				V
集电极—发射极直流电压 Collector- Emitter Voltage	V _{CEO}	-180	-180	-110	-110	V
发射极—基极直流电压 Emitter-Base Voltage	V _{EBO}	-5				V
最大集电极电流 Collector Current	I _C	-8	-10	-10	-12	A
最大基极电流 Base Current	I _B	-1.0				A
最大集电极耗散功率 Collector Dissipation	P _C	80 (Tc=25°C)				W
最高结温 Junction Temperature	T _j	150				°C
贮存温度 Storage Temperature	T _{stg}	-55~150				°C

电特性 ELECTRICAL CHARACTERISTIC

项 目 Parameter	测试条件 Tests conditions	最小值 Value(min)		典型值 Value(typ)	最大值 Value(max)	单 位 Unit
		B688 B688A	B688B B688C			
V _{(BR)CEO}	I _C =-50mA, I _B =0	-180	-110	-	-	V
I _{CB0}	V _{CB} =-160V, I _E =0	-		-	-10.0	μA
I _{EBO}	V _{EB} =-5V, I _C =0	-		-	-10.0	mA
hFE	V _{CE} =-5V, I _C =-1.0A	80		120	160	-
V _{CE(sat)}	I _C =-6.0A, I _B =-0.6A	-		-	-2.0	V
V _{BE(ON)}	V _{CE} =-5V, I _C =-5.0A	-		-	-1.5	V
f _T	V _{CE} =-5V, I _C =-1.0A	-		12	-	MHz
C _{Ob}	V _{CE} =10V, I _E =0, f=1MHz	-		170	-	pF

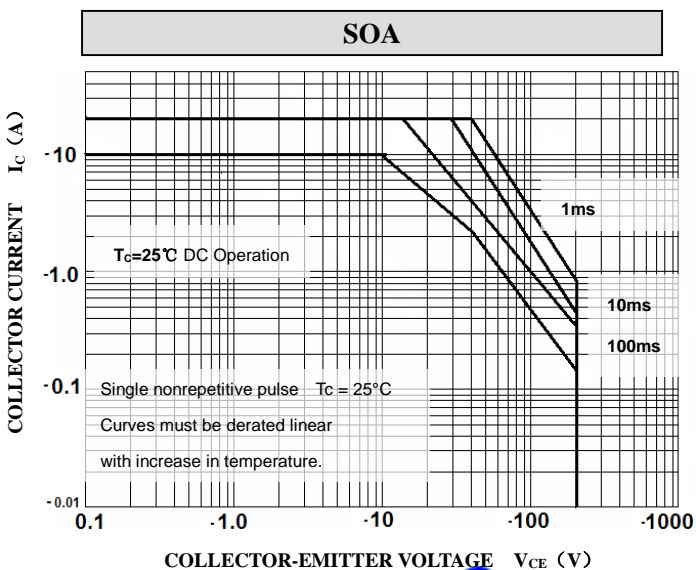
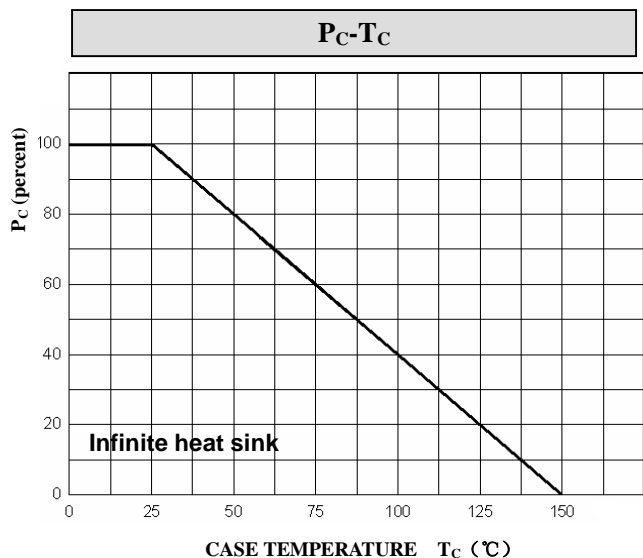
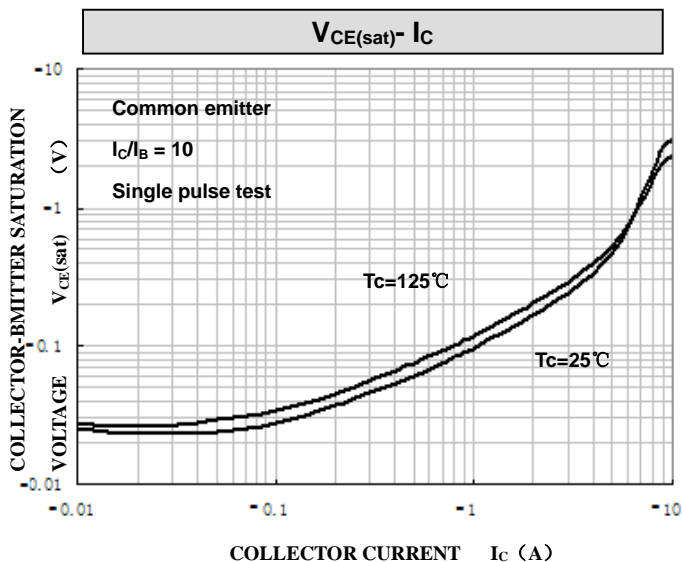
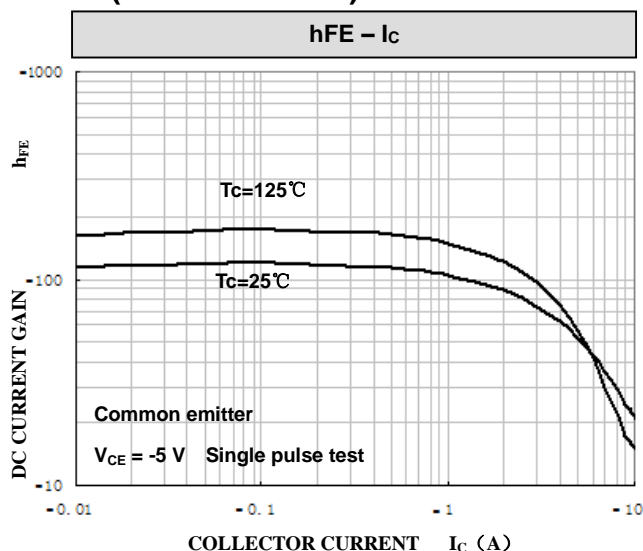
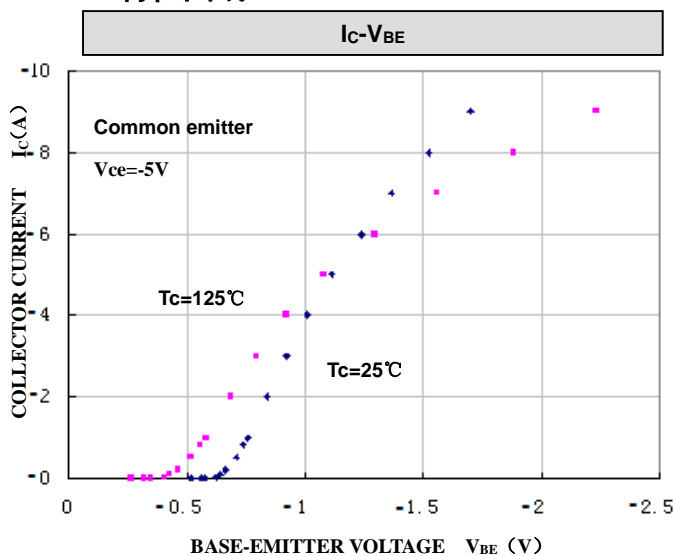
热特性 THERMAL CHARACTERISTIC

项 目 Parameter	符 号 Symbo	最小值 min	最大值 max	单 位 Unit
结到管壳的热阻 Thermal Resistance Junction Case TO-247	R _{th(j-c)}	-	1.56	°C/W





特征曲线 ELECTRICAL CHARACTERISTICS (2SB688 curves)

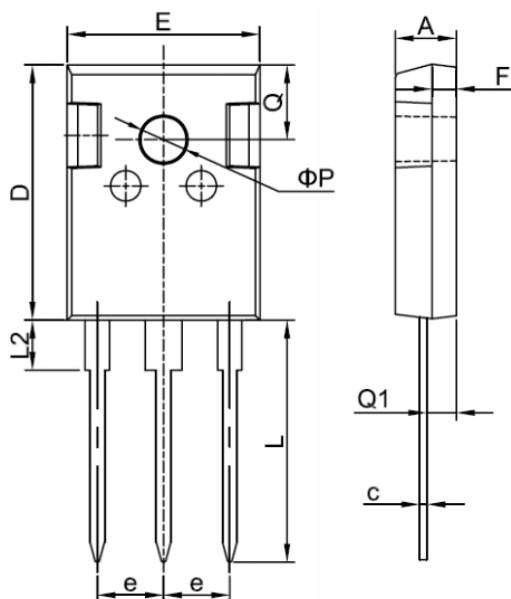




外形尺寸 PACKAGE MECHANICAL DATA

TO-247

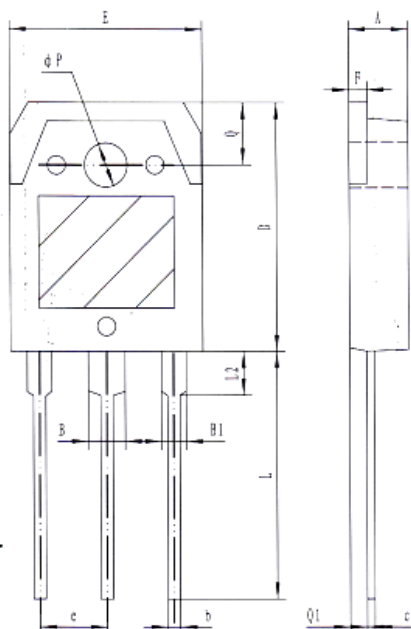
单位 Unit : mm



符号	尺寸 (mm)
A	4.90-5.10
B	2.95-3.35
B1	1.95-2.35
b	1.15-1.35
c	0.50-0.70
D	20.9-21.1
E	15.7-15.9
e	5.34-5.54
F	1.90-2.10
L	19.4-20.4
L2	4.03-4.23
P	3.50-3.70
Q	6.00-6.40
Q1	2.30-2.50

TO-3PB

单位 Unit : mm



符号	尺寸 (mm)
A	4.60-5.00
B	2.90-3.20
B1	1.90-2.20
b	0.90-1.10
c	0.50-0.70
D	19.40-20.40
E	15.40-15.80
e	5.45(TYP)
F	1.40-1.60
L	19.50-20.50
L2	3.30-3.70
P	3.10-3.50
Q	4.90-5.10
Q1	1.30-1.50



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3. 在电路设计时请不要超过器件的绝对最大额定值，否则会影响整机的可靠性。
4. 本说明书如有版本变更不另外告知

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2. We strongly recommend customers check carefully on the trademark when buying our product, if there is any question, please don't be hesitate to contact us.
3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
4. Jilin Sino-microelectronics co., Ltd reserves the right to make changes in this specification sheet and is subject to change without prior notice.

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附录 (Appendix) : 修订记录 (Revision History)

日期 Date	旧版本 Last Rev.	新版本 New Rev.	修订内容 Description of Changes
2016-2-17		201602A	
2019-5-5	201602A	201905B	部分电压参数调整

