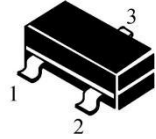


BC807

SOT-23

- 1. BASE
- 2. EMITTER
- 3. COLLECTOR



■ FEATURES 特點

PNP Low Frequency Amplifier Transistor

■ MAXIMUM RATINGS 最大額定值

Characteristic 特性參數	Symbol 符號	Rating 額定值	Unit 單位
Collector-Emitter Voltage 集電極發射極電壓	V_{CEO}	-45	V
Collector-Base Voltage 集電極-基極電壓	V_{CBO}	-50	V
Emitter-Base Voltage 發射極-基極電壓	V_{EBO}	-5.0	V
Collector Current—Continuous 集電極電流-連續	I_c	-500	mA

■ THERMAL CHARACTERISTICS 熱特性

Characteristic 特性參數	Symbol 符號	Max 最大值	Unit 單位
Total Device Dissipation 總耗散功率 FR-5 Board(1) $T_A=25^{\circ}\text{C}$ 溫度為 25°C Derate above 25°C 超過 25°C 遞減	P_D	225 1.8	mW mW/ $^{\circ}\text{C}$
Total Device Dissipation 總耗散功率 Alumina Substrate 氧化鋁襯底,(2) $T_A=25^{\circ}\text{C}$ Derate above 25°C 超過 25°C 遞減	P_D	300 2.4	mW mW/ $^{\circ}\text{C}$
Thermal Resistance Junction to Ambient 熱阻	$R_{\theta JA}$	417	$^{\circ}\text{C}/\text{W}$
Junction and Storage Temperature] 結溫和儲存溫度	T_J, T_{stg}	-55to+150 $^{\circ}\text{C}$	

■ DEVICE MARKING 打標

BC807-16=5A; BC807-25=5B; BC807-40=5C



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■ ELECTRICAL CHARACTERISTICS 電特性

($T_A=25^{\circ}\text{C}$ unless otherwise noted 如無特殊說明, 溫度為 25°C)

Characteristic 特性參數	Symbol 符號	Min 最小值	Max 最大值	Unit 單位
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■ OFF CHARACTERISTICS 截止電特性

Collector-Emitter Breakdown Voltage 集電極發射極擊穿電壓 ($I_c = -10\text{mA}$, $I_B = 0$)	$V_{(BR)CEO}$	-45	—	V
Collector-Base Breakdown Voltage 集電極基極擊穿電壓 ($I_c = -10\mu\text{A}$, $V_{EB} = 0$)	$V_{(BR)CBS}$	-50	—	V
Emitter-Base Breakdown Voltage 發射極基極擊穿電壓 ($I_E = -1.0\text{mA}$, $I_c = 0$)	$V_{(BR)EBO}$	-5.0	—	V
Collector Cutoff Current 集電極截止電流($V_{CB} = -20\text{V}$) ($V_{CB} = -20\text{V}$, $T_A = 150^{\circ}\text{C}$)	I_{CBO}	— —	-100 -5.0	nA uA

■ ON CHARACTERISTICS 導通電特性

DC Current Gain 直流電流增益	H_{FE}			—
($I_c = -100\text{mA}$, $V_{CE} = -1.0\text{V}$)	807-16 807-25 807-40	100 160 250	250 400 600	
($I_c = -500\text{mA}$, $V_{CE} = -1.0\text{V}$)		40	—	
Collector-Emitter Saturation Voltage 集電極-發射極飽和壓降($I_c = -500\text{mA}$, $I_B = -50\text{mA}$)	$V_{CE(sat)}$	—	-0.7	V
Base-Emitter Saturation Voltage 基極-發射極飽和壓降($I_c = -500\text{mA}$, $I_B = -50\text{mA}$)	$V_{BE(sat)}$	—	-1.2	V
Base-Emitter Voltage 基極-發射極電壓($I_c = -500\text{mA}$, $V_{CE} = -1.0\text{V}$)	$V_{BE(on)}$	—	-1.2	V

■ SMALL-SIGNAL CHARACTERISTICS 小信號特性

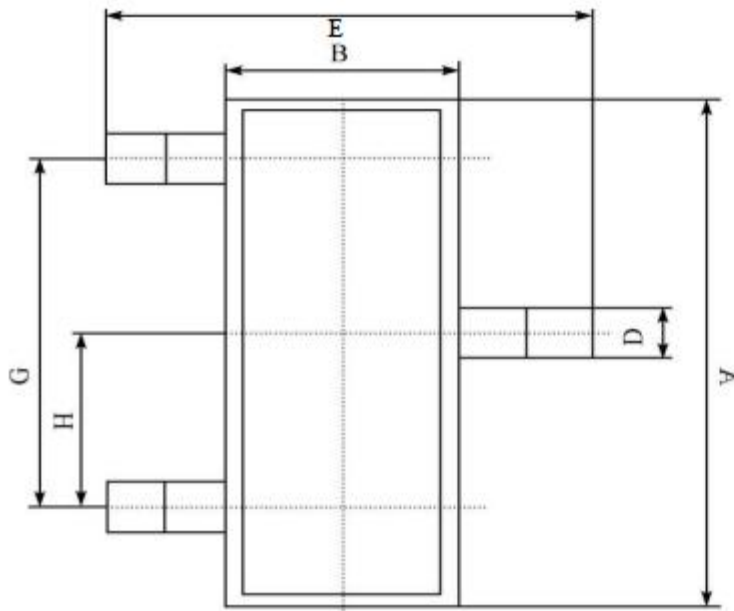
Current-Gain-Bandwidth Product 電流增益-帶寬乘積 ($I_c = -10\text{mA}$, $V_{CE} = -5.0\text{V}$, $f = 100\text{MHz}$)	f_T	100	—	MHz
Output Capacitance 輸出電容($V_{CB} = -10\text{V}$, $f = 1.0\text{MHz}$)	C_{obo}	—	10	pF

1. FR-5=1.0×0.75×0.062in.
2. Alumina=0.4×0.3×0.024in.99.5%alumina.

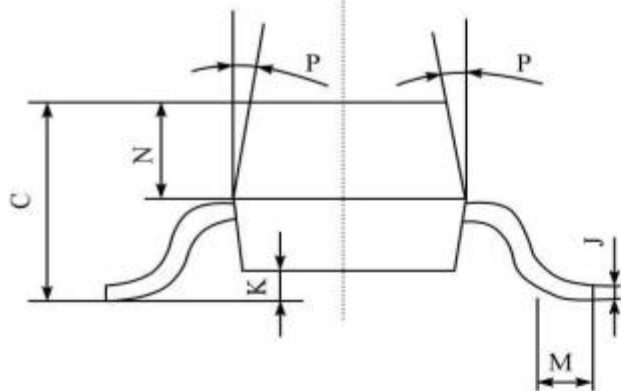
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■ DIMENSION 外形封裝尺寸

單位(UNIT): mm



代碼	範圍(單位:mm)
A	2.80~3.00
B	1.20~1.40
C	0.90~1.10
D	0.30~0.50
E	2.20~2.60
G	1.80~2.00
H	0.90~1.00
J	0.08~0.18
K	0.02~0.12
M	≥0.22
N	0.50~0.70
P	6°~10°





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