



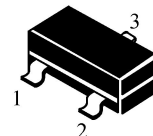
桂林斯壯微電子有限責任公司

Guilin Strong Micro-Electronics Co.,Ltd.

GM807(銷售型號 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) $T_A=25^{\circ}C$ 溫度為 $25^{\circ}C$ Derate above $25^{\circ}C$ 超過 $25^{\circ}C$ 遞減	P_D	225 1.8	mW mW/ $^{\circ}C$
Total Device Dissipation 總耗散功率 Alumina Substrate 氧化鋁襯底,(2) $T_A=25^{\circ}C$ Derate above $25^{\circ}C$ 超過 $25^{\circ}C$ 遞減	P_D	300 2.4	mW mW/ $^{\circ}C$
Thermal Resistance Junction to Ambient 熱阻	$R_{\theta JA}$	417	$^{\circ}C/W$
Junction and Storage Temperature] 結溫和儲存溫度	T_J, T_{stg}	-55to+150 $^{\circ}C$	

■DEVICE MARKING 打標

GM807-16(BC807-16)=5A; GM807-25(BC807-25)=5B; GM807-40(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 ($I_E = -1.0\mu\text{A}, I_c = 0$)	$V_{(BR)EBO}$	-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	100	250	
	807-25	160	400	
	807-40	250	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

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