

**SOT-23 Formed SMD Package**

**BC807  
BC808**

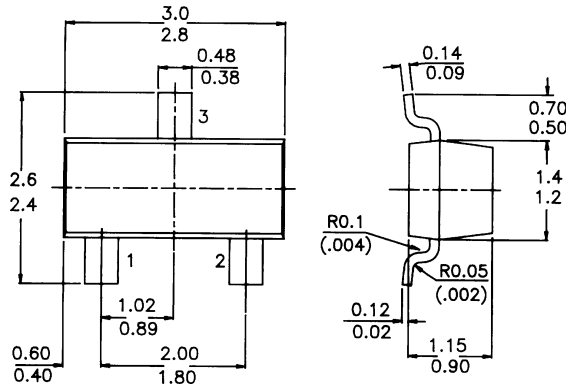
**SILICON PLANAR EPITAXIAL TRANSISTORS**

*P-N-P transistor*

**Marking**

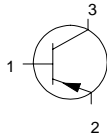
- BC807 = 5D
- BC807-16 = 5A
- BC807-25 = 5B
- BC807-40 = 5C
- BC808 = 5H
- BC808-16 = 5E
- BC808-25 = 5F
- BC808-40 = 5G

**PACKAGE OUTLINE DETAILS  
ALL DIMENSIONS IN mm**



**Pin configuration**

- 1 = BASE
- 2 = EMITTER
- 3 = COLLECTOR



**ABSOLUTE MAXIMUM RATINGS**

	<b>BC807</b>	<b>8C808</b>
Collector-emitter voltage ( $V_{BE} = 0$ )	$-V_{CES}$ max. 50	30 V
Collector-emitter voltage (open base)	$-V_{CE0}$ max. 45	25 V
Collector current (peak value)	$-I_{CM}$ max.	1000 mA
Total power dissipation up to $T_{amb} = 25\text{ }^\circ\text{C}$	$P_{tot}$ max.	250 mW
Junction temperature	$T_j$ max.	150 $^\circ\text{C}$
Transition frequency at $f = 100\text{ MHz}$ $-I_C = 10\text{ mA}; -V_{CE} = 5\text{ V}$	$f_T >$	80 MHz

**BC807  
BC808**

**RATINGS** (at  $T_A = 25^\circ\text{C}$  unless otherwise specified)

Limiting values		<b>BC807</b>	<b>BC808</b>
Collector-emitter voltage ( $V_{BE} = 0$ )	$-V_{CES}$ max.	50	30 V
Collector-emitter voltage (open base) $-I_C = 10$ mA	$-V_{CE0}$ max.	45	25 V
Emitter-base voltage (open collector)	$-V_{EB0}$ max.	5	5 V
Collector current (DC)	$-I_C$ max.	500	mA
Collector current (peak value)	$-I_{CM}$ max.	1000	mA
Emitter current (peak value)	$I_{EM}$ max.	1000	mA
Base current (DC)	$-I_B$ max.	100	mA
Base current (peak value)	$-I_{BM}$ max.	200	mA
Total power dissipation at $T_{amb} = 25^\circ\text{C}$ *	$P_{tot}$ max.	250	mW
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$
Junction temperature	$T_j$ max.	150	$^\circ\text{C}$

**THERMAL RESISTANCE\***

From junction to ambient	$R_{th\ j-a}$ =	500	K/W
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**CHARACTERISTICS**

$T_j = 25^\circ\text{C}$  unless otherwise specified

Collector cut-off current $I_E = 0; -V_{CB} = 20\text{V}; T_j = 25^\circ\text{C}$	$-I_{CB0}$ max.	100	nA
$I_E = 0; -V_{CB} = 20\text{V}; T_j = 150^\circ\text{C}$	$-I_{CB0}$ max.	5	mA
Emitter cut-off current $I_C = 0; V_{EB} = 5\text{V}$	$-I_{EB0}$ max.	10	mA
Base emitter voltage * $-I_C = 500\text{ mA}; -V_{CE} = 1\text{ V}$	$-V_{BE}$ max.	1,2	V
Saturation voltage $-I_C = 500\text{ mA}; -I_B = 50\text{ mA}$	$-V_{CEsat}$ max.	700	mV
D.C. current gain $-I_C = 500\text{ mA}; -V_{CE} = 1\text{ V}$	$h_{FE}$ min.	40	
$-I_C = 100\text{ mA}; -V_{CE} = 1\text{ V}; \text{BC807}; \text{BC808}$	$h_{FE}$	100 to 600	
$\text{BC807-16}$	$h_{FE}$	100 to 250	
$\text{BC808-16}$	$h_{FE}$	100 to 250	
$\text{BC807-25}$	$h_{FE}$	160 to 400	
$\text{BC808-25}$	$h_{FE}$	160 to 400	
$\text{BC807-40}$	$h_{FE}$	250 to 600	
$\text{BC808-40}$	$h_{FE}$	250 to 600	
Transition frequency at $f = 100\text{ MHz}$ $-I_C = 10\text{ mA}; -V_{CE} = 5\text{ V}$	$f_T$	>	80 MHz
Collector capacitance at $f = 1\text{ MHz}$ $I_E = I_e = 0; -V_{CB} = 10\text{ V}$	$C_c$	typ.	8 pF

## Notes

### Disclaimer

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