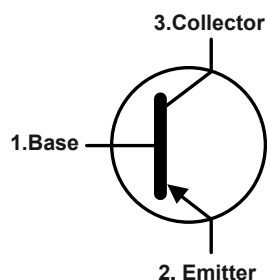


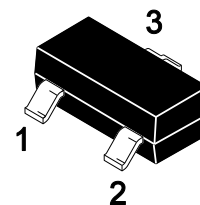
Features

- For Switching and AF Amplifier Applications.

Equivalent Circuit



SOT-23



1.Base 2.Emitter 3.Collector

Marking Code :

BC807-16 : 5CR
 BC808-16 : 5CW
 BC807-25 : 5CS
 BC808-25 : 5CX
 BC807-40 : 5CT
 BC808-40 : 5CY

Absolute Maximum Ratings

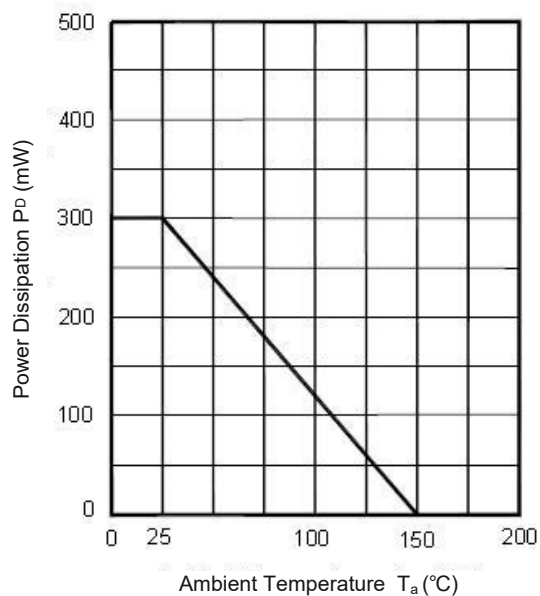
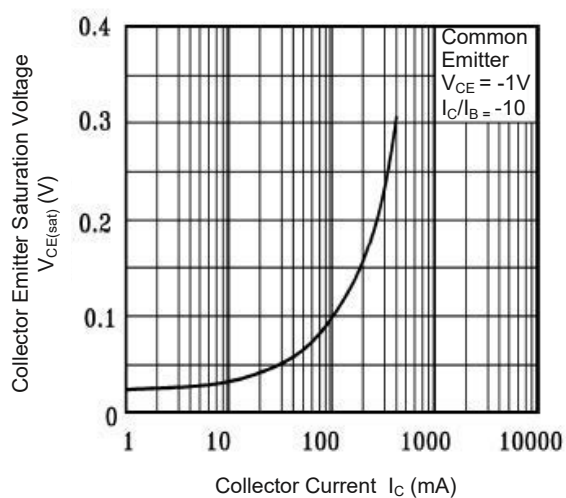
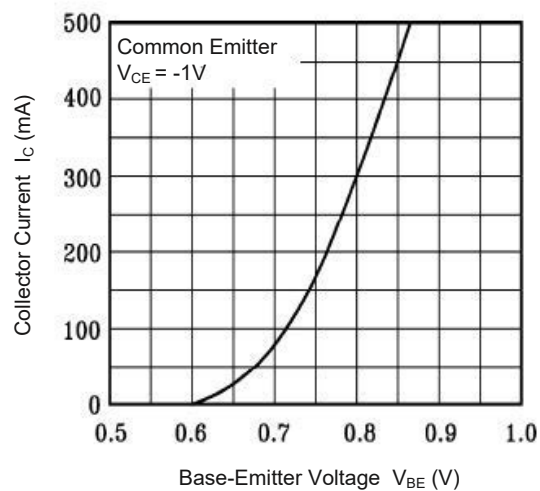
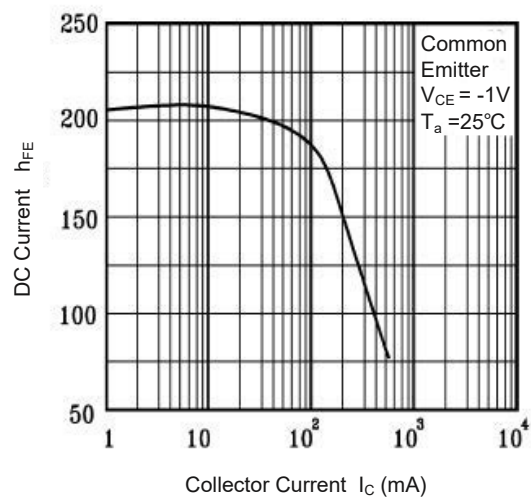
Ratings at 25°C ambient temperature unless otherwise specified.

Parameter		Symbol	Value	Unit
Collector Base Voltage	BC807 BC808	$-V_{CBO}$	50 30	V
Collector Emitter Voltage	BC807 BC808	$-V_{CEO}$	45 25	V
Emitter Base Voltage		$-V_{EBO}$	5	V
Collector Current		$-I_C$	500	mA
Maximum Power Dissipation		P_D	300	mW
Junction Temperature		T_J	150	°C
Storage Temperature Range		T_{STG}	-55 to +150	°C



Parameter	Symbol	Min.	Tpy.	Max.	Unit
DC Current Gain at V _{CE} = -1 V, I _C = -100 mA Gain Group -16 -25 -40 at V _{CE} = -1 V, I _C = -500 mA	H _{FE}	100 160 250 40	-- -- -- --	250 400 600 --	--
Collector Base Cutoff Current at V _{CB} = -20V	-I _{CBO}	--	--	100	nA
Emitter Base Cutoff Current at V _{EB} = -5 V	-I _{EBO}	--	--	100	nA
Collector Emitter Saturation Voltage at I _C = -500 mA, I _B = -50 mA	-V _{CE(sat)}	--	--	0.7	V
Base Emitter On Voltage at V _{CE} = -1 V, I _C = -500 mA	-V _{BE(on)}	--	--	1.2	V
Transition Frequency at V _{CE} = -5 V, I _C = -10 mA, f = 50 MHz	F _T	80	--	--	MHz
Output Capacitance at V _{CB} = -10 V, f = 1 MHz	C _{ob}	--	9	--	pF

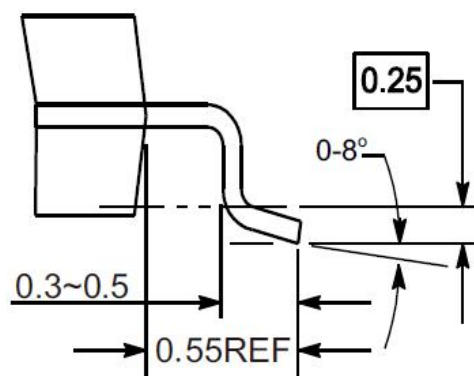
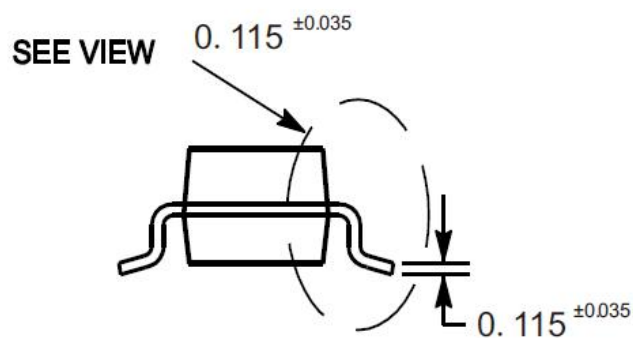
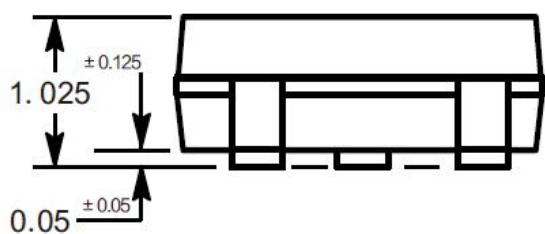
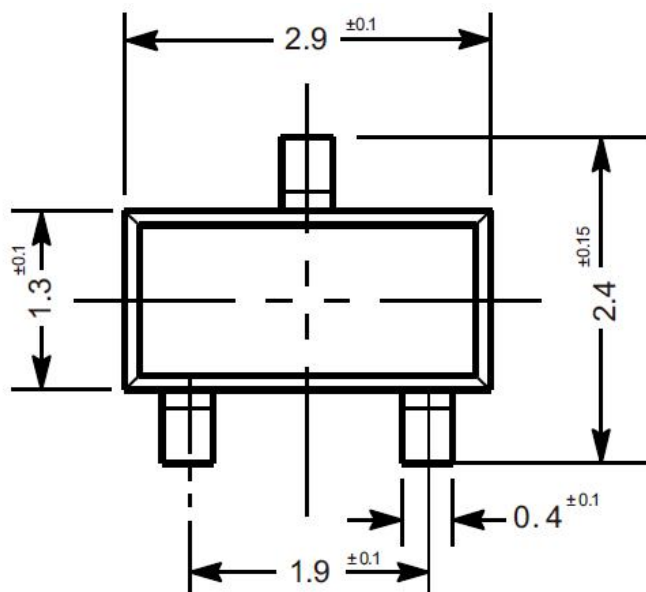
Typical Characteristic Curves



Package Outline

SOT-23

Dimensions in mm



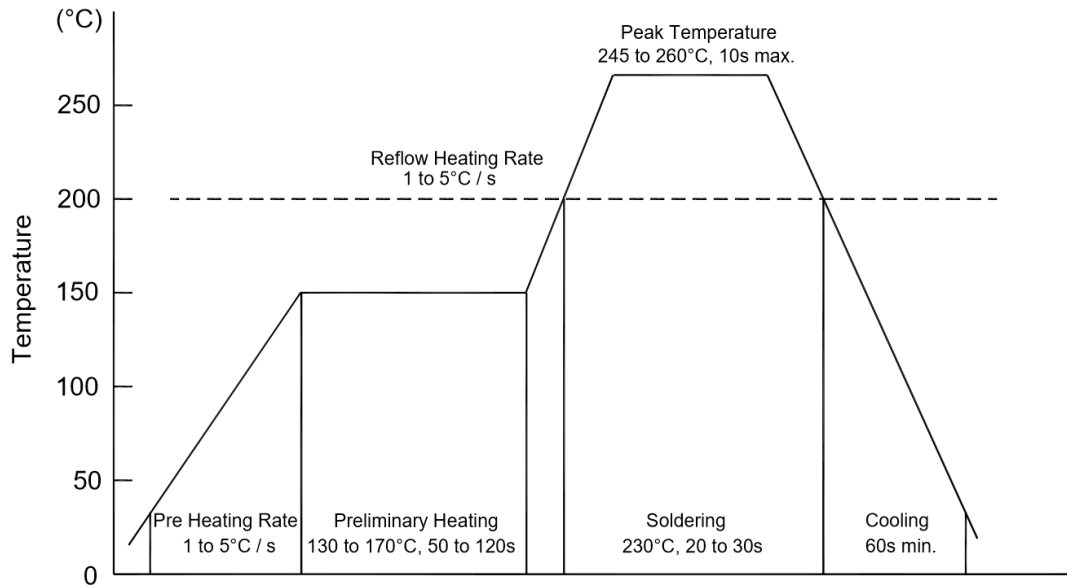
VIEW C

Ordering Information

Device	Package	Shipping
BC807/BC808	SOT-23	3,000PCS/Reel&7inches

Conditions of Soldering and Storage

◆ Recommended condition of reflow soldering



Recommended peak temperature is over 245 °C. If peak temperature is below 245 °C, you may adjust the following parameters:

- Time length of peak temperature (longer)
- Time length of soldering (longer)
- Thickness of solder paste (thicker)

◆ Conditions of hand soldering

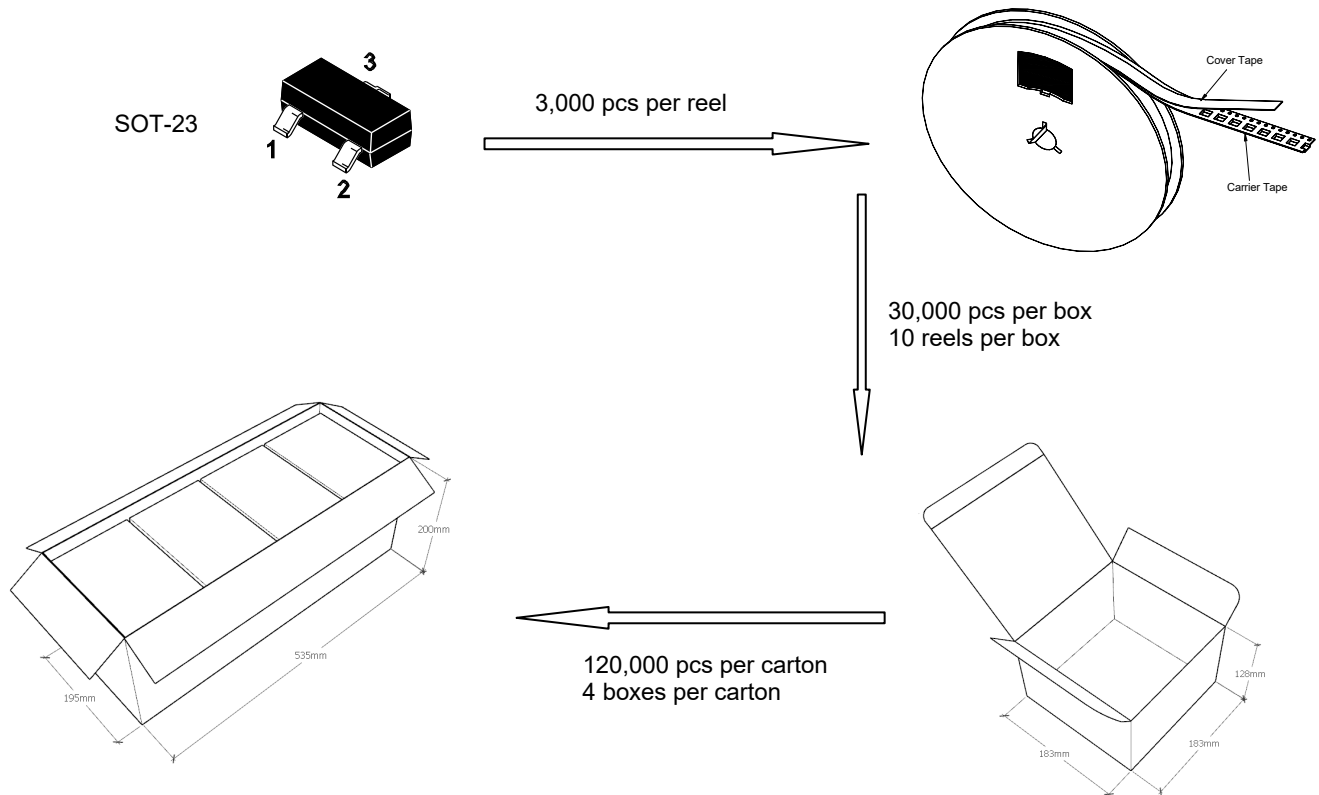
- Temperature: 370 °C
- Time: 3s max.
- Times: one time

◆ Storage conditions

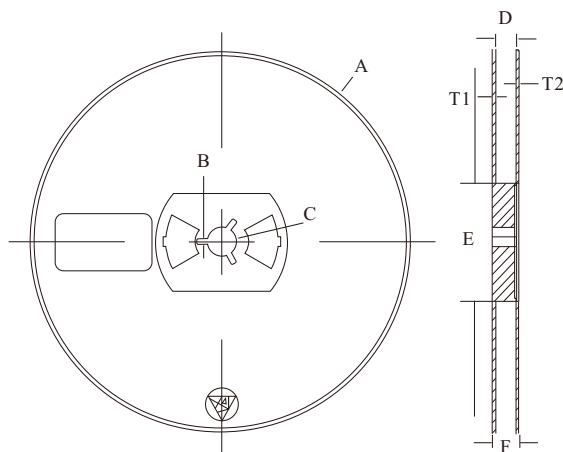
- **Temperature**
5 to 40 °C
- **Humidity**
30 to 80% RH
- **Recommended period**
One year after manufacturing

Package Specifications

- The method of packaging



◆ Embossed tape and reel data



Symbol	Value (unit: mm)
A	$\varnothing 177.8 \pm 1$
B	2.7 ± 0.2
C	$\varnothing 13.5 \pm 0.2$
E	$\varnothing 54.5 \pm 0.2$
F	12.3 ± 0.3
D	$9.6 + 2 / - 0.3$
T1	1.0 ± 0.2
T2	1.2 ± 0.2

Reel (7")

