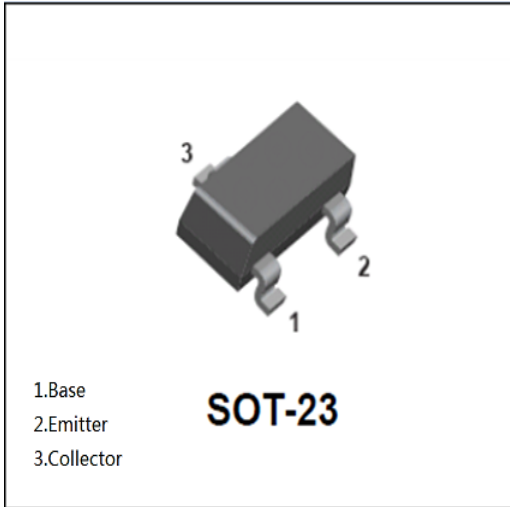


## NPN Transistor



### Features

- Epoxy meets UL-94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Surface mount package ideally Suited for Automatic Insertion
- NPN

### Mechanical Data

- **Package:** SOT-23
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:** 49C

### ■ Maximum Ratings (Ta=25°C unless otherwise noted)

Item	Symbol	Unit	Conditions	Value
Collector-Base Voltage	$V_{(BR)CBO}$	V	$I_C=100\mu A, I_E=0$	50
Collector-Emitter Voltage	$V_{(BR)CEO}$	V	$I_C=0.1mA, I_B=0$	45
Emitter-Base Voltage	$V_{(BR)EBO}$	V	$I_E=100\mu A, I_C=0$	5
Collector Current -Continuous	$I_C$	A		0.1
Total Device Dissipation	PD	mW		200
Junction Temperature	$T_j$	°C		150
Storage Temperature	TSTG	°C		-55 to +150

### ■ Electrical Characteristics (Ta=25°C unless otherwise noted)

Item	Symbol	Unit	Conditions	Min	Max
Collector-base breakdown voltage	$V_{(BR)CBO}$	V	$I_C=100\mu A, I_E=0$	50	
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	V	$I_C=0.1mA, I_B=0$	45	
Emitter-base breakdown voltage	$V_{(BR)EBO}$	V	$I_E=100\mu A, I_C=0$	5	
Collector cut-off current	$I_{CBO}$	$\mu A$	$V_{CB}=50V, I_E=0$		0.1
Collector cut-off current	$I_{CEO}$	$\mu A$	$V_{CE}=35V, I_B=0$		0.1
Emitter cut-off current	$I_{EBO}$	$\mu A$	$V_{EB}=3V, I_C=0$		0.1
DC current gain	$h_{FE}$		$V_{CE}=5V, I_C=1mA$	200	1000
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	$I_C=100mA, I_B=5mA$		0.3
Base-emitter saturation voltage	$V_{BE(sat)*}$	V	$I_C=100mA, I_B=5mA$		1



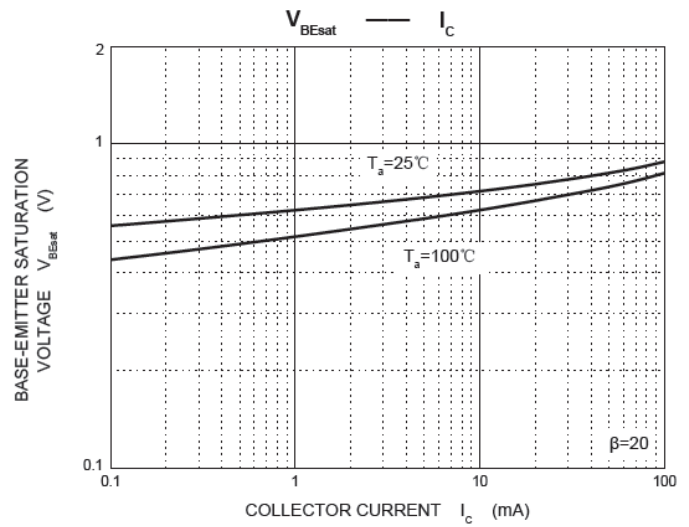
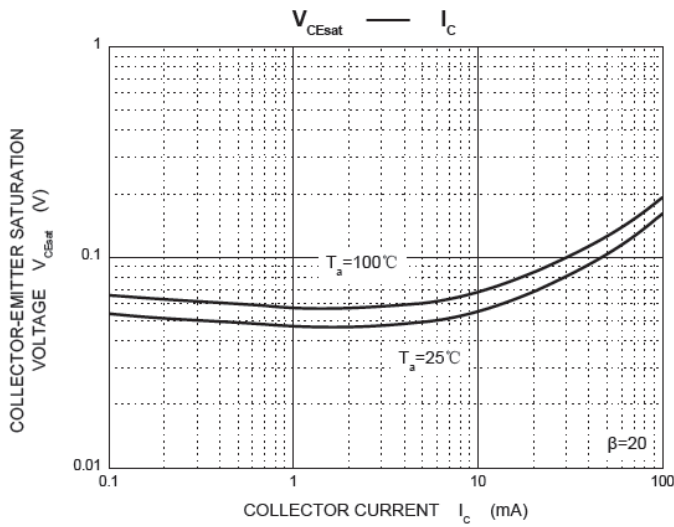
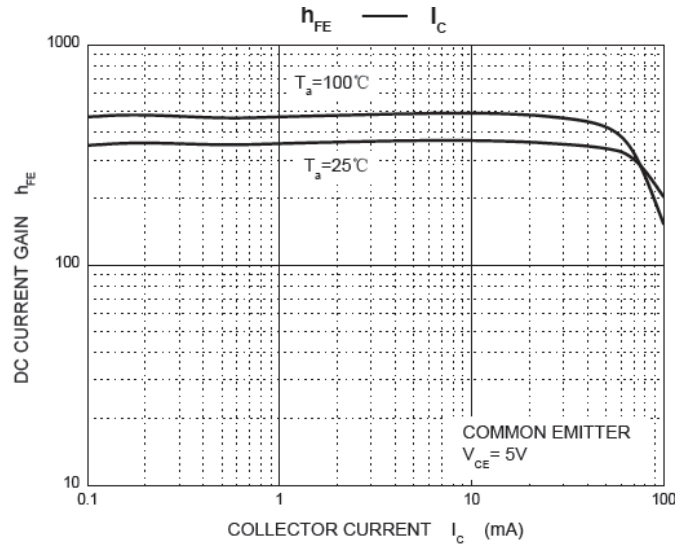
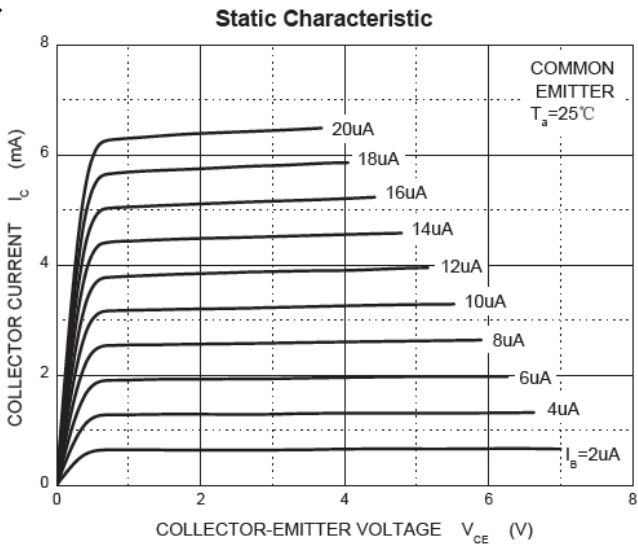
■ Other Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	Max
Transition frequency	f <sub>T</sub>	MHz	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 10mA, f=30MHz	150	

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BC849C	F2	Approximate 0.009	3000	30000	120000	7" reel

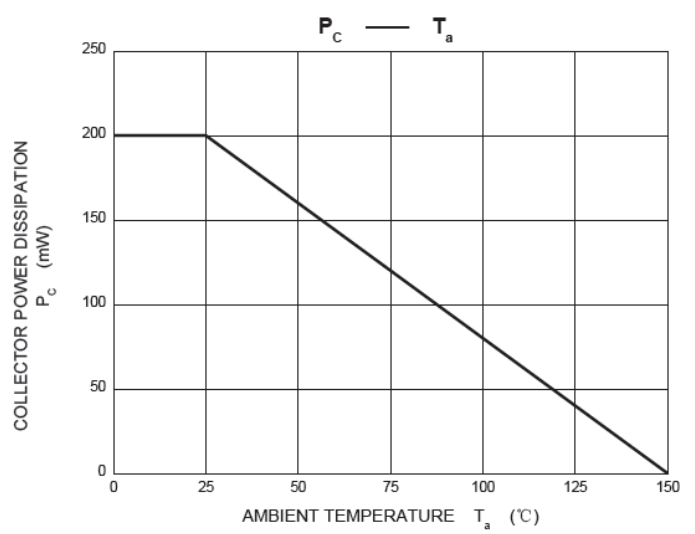
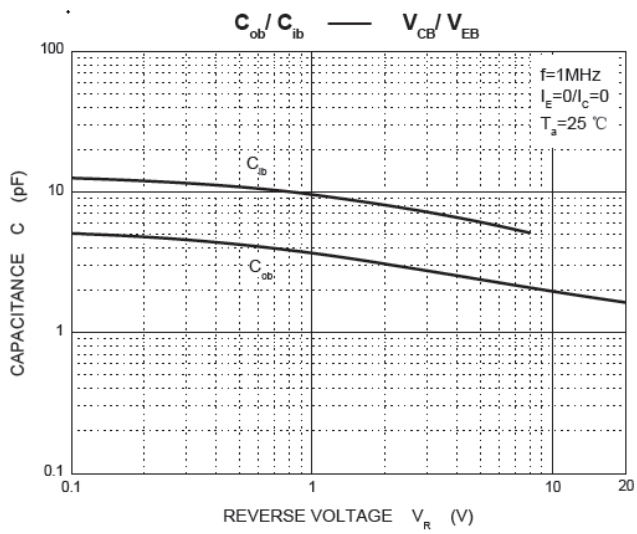
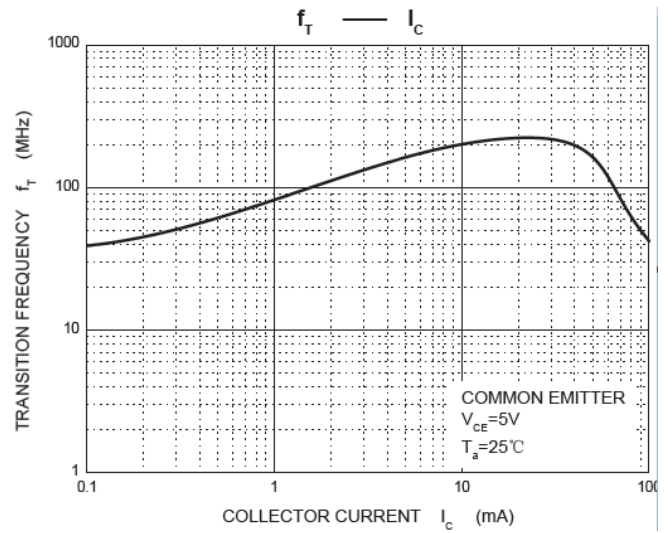
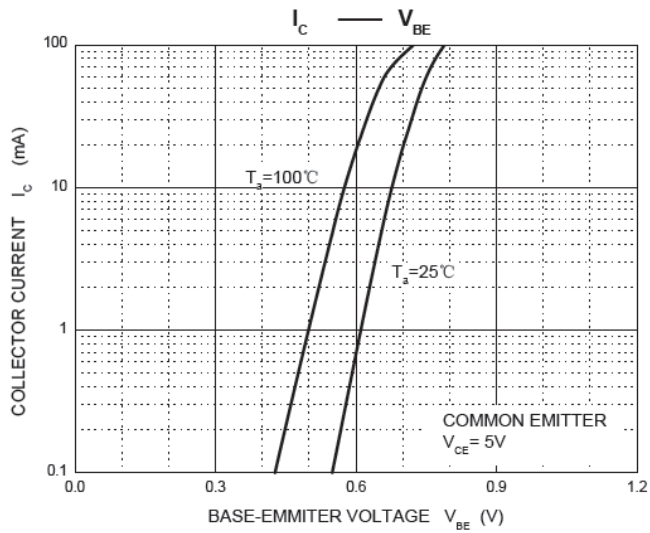
■ Characteristics(Typical)



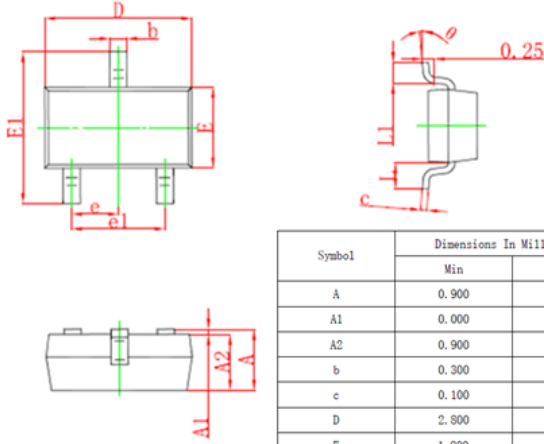


# BC849C

RoHS  
COMPLIANT

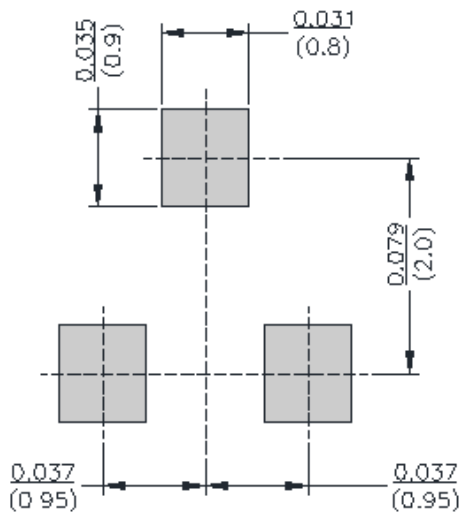


## ■SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.022REF	
L1	0.300	0.500	0.012	0.020
phi	0°	8°	0°	8°

## ■SOT-23Suggested Pad Layout





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