

GENERAL PURPOSE APPLICATION.  
SWITCHING APPLICATION.

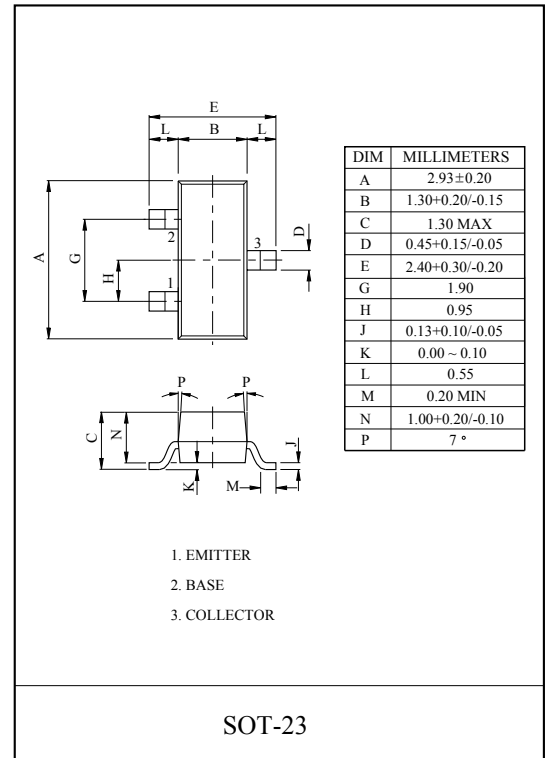
### FEATURES

- For Complementary With PNP Type BC859/860.

### MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	BC849	30	V
	BC850	50	
Collector-Emitter Voltage	BC849	30	V
	BC850	45	
Emitter-Base Voltage	V <sub>EBO</sub>	5	V
Collector Current	I <sub>C</sub>	100	mA
Collector Power Dissipation	P <sub>C</sub> *	350	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55 ~ 150	°C

P<sub>C</sub>\* : Package Mounted On 99.5% Alumina 10×8×0.6mm.



### ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Emitter Breakdown Voltage	BC849	I <sub>C</sub> =10mA, I <sub>B</sub> =0	30	-	-	V
	BC850		45	-	-	
Collector-Base Breakdown Voltage	BC849	I <sub>C</sub> =10μA, I <sub>E</sub> =0	30	-	-	V
	BC850		50	-	-	
Emitter-Base Breakdown Voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =10μA, I <sub>C</sub> =0	5	-	-	V
Collector Cut-off Current	I <sub>CBO</sub>	V <sub>CB</sub> =30V, I <sub>E</sub> =0	-	-	15	nA
DC Current Gain	h <sub>FE</sub> (Note)	I <sub>C</sub> =2mA, V <sub>CE</sub> =5V	200	-	800	
Base-Emitter Voltage	V <sub>BE(ON)</sub> 1	I <sub>C</sub> =2mA, V <sub>CE</sub> =5V	0.58	0.66	0.7	V
	V <sub>BE(ON)</sub> 2	I <sub>C</sub> =10mA, V <sub>CE</sub> =5V	-	-	0.77	
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub> 1	I <sub>C</sub> =10mA, I <sub>B</sub> =0.5mA	-	0.09	0.25	V
	V <sub>CE(sat)</sub> 2	I <sub>C</sub> =100mA, I <sub>B</sub> =5mA	-	0.2	0.6	
Base-Emitter Saturation Voltage	V <sub>BE(sat)</sub> 1	I <sub>C</sub> =10mA, I <sub>B</sub> =0.5mA	-	0.7	-	V
	V <sub>BE(sat)</sub> 2	I <sub>C</sub> =100mA, I <sub>B</sub> =5mA	-	0.9	-	
Transition Frequency	f <sub>T</sub>	I <sub>C</sub> =10mA, V <sub>CE</sub> =5V, f=100MHz	-	300	-	MHz
Collector Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz	-	2.5	4.5	pF
Noise Figure	BC849	I <sub>C</sub> =200μA, V <sub>CE</sub> =5V R <sub>g</sub> =10kΩ, f=1kHz	-	-	4.0	dB
	BC850		-	-	1.0	

Note : h<sub>FE</sub> Classification B:200 ~ 450, C:420 ~ 800

### Marking

### MARK SPEC

TYPE	BC849B	BC849C	BC850B	BC850C
MARK	2B	2C	2F	2G

