

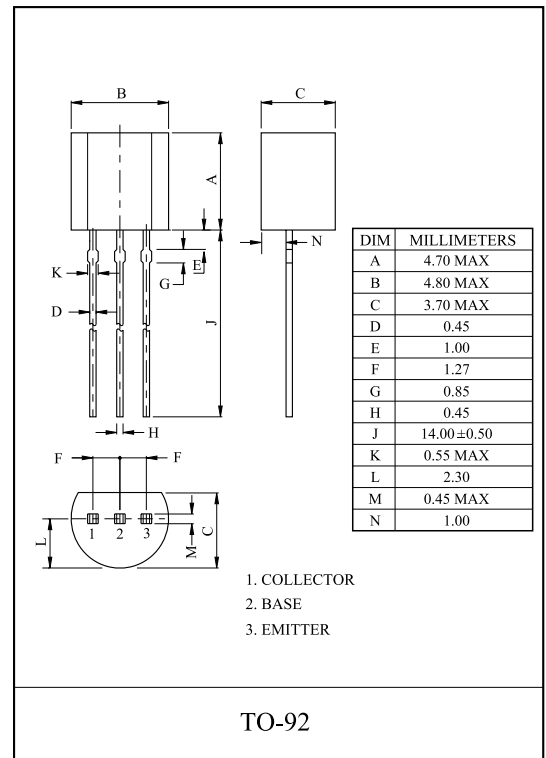
LOW NOISE AMPLIFIER APPLICATION.

### FEATURE

- For Complementary with PNP Type BC559/560.

### MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	BC549	30	V
	BC550	50	
Collector-Emitter Voltage	BC549	30	V
	BC550	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>	625	mW
Junction Temperature	T <sub>j</sub>	150	
Storage Temperature Range	T <sub>stg</sub>	-55 150	



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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Emitter Breakdown Voltage	BC549	I <sub>C</sub> =10mA, I <sub>B</sub> =0	30	-	-	V
	BC550		45	-	-	
Collector-Base Breakdown Voltage	BC549	I <sub>C</sub> =10 μA, I <sub>E</sub> =0	30	-	-	V
	BC550		50	-	-	
Emitter-Base Breakdown Voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =10 μA, I <sub>C</sub> =0	5.0	-	-	V
Collector Cut-off Current	I <sub>CB0</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	110	-	800	
Base-Emitter Voltage	V <sub>BE(ON)</sub>	I <sub>C</sub> =2mA, V <sub>CE</sub> =5V	0.55	-	0.7	V
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =5mA	-	-	0.6	V
Base-Emitter Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =5mA	-	0.9	-	V
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	-	-	4.5	pF
Noise Figure	BC549	I <sub>C</sub> =200 μA, V <sub>CE</sub> =5V R <sub>g</sub> =10k Ω, f=1kHz	-	-	4.0	dB
	BC550		-	-	10	

Note : h<sub>FE</sub> Classification A:110 220, B:200 450, C:420 800