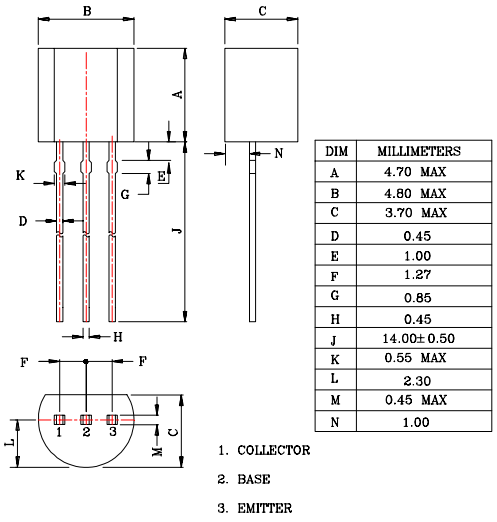
BC549/550

EPITAXIAL PLANAR NPN TRANSISTOR

LOW NOISE AMPLIFIER APPLICATION.

MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage	BC549	V_{CBO}	30	V
	BC550		50	
Collector-Emitter Voltage	BC549	V_{CEO}	30	V
	BC550		45	
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current		I_C	100	mA
Collector Power Dissipation		P_C	625	mW
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	-55~150	℃



DIM	MILLIMETERS
A	4.70 MAX
B	4.80 MAX
C	3.70 MAX
D	0.45
E	1.00
F	1.27
G	0.85
H	0.45
J	14.00±0.50
K	0.55 MAX
L	2.30
M	0.45 MAX
N	1.00

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ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Emitter Breakdown Voltage	BC549	$V_{(BR)CEO}$	I_C=10mA, I_B=0	30	-	-	V
	BC550			45	-	-	
Collector-Base Breakdown Voltage	BC549	$V_{(BR)CBO}$	I_C=10μA, I_E=0	30	-	-	V
	BC550			50	-	-	
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	I_E=10μA, I_C=0	5.0	-	-	V
Collector Cut-off Current		I_{CBO}	V_{CB}=30V, I_E=0	-	-	15	nA
DC Current Gain		h_{FE}(Note)	I_C=2mA, V_{CE}=5V	110	-	800	
Base-Emitter Voltage		$V_{BE(ON)}$	I_C=2mA, V_{CE}=5V	0.55	-	0.7	V
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	I_C=100mA, I_B=5mA	-	-	0.6	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	I_C=100mA, I_B=5mA	-	0.9	-	V
Transition Frequency		f_T	I_E=10mA, V_{CE}=5V, f=100MHz	-	300	-	MHz
Collector Output Capacitance		C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	-	-	4.5	pF
Noise Figure	BC549	NF	I_C=200μA, V_{CE}=5V Rg=10kΩ, f=1kHz	-	-	4.0	dB
	BC550			-	-	10	

Note : h_{FE} Classification A:110~220, B:200~450, C:420~800