

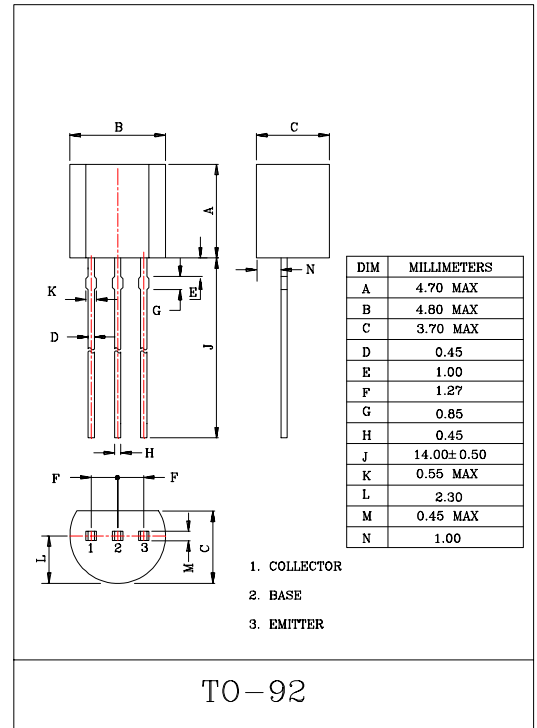
GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION .

FEATURES

- High Voltage : BC546 $V_{CEO}=65V$.
- For Complementary With PNP Type BC556/557/558.

MAXIMUM RATINGS ($T_a=25^{\circ}C$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	BC546	80	V
	BC547	50	
	BC548	30	
Collector-Emitter Voltage	BC546	65	V
	BC547	45	
	BC548	30	
Emitter-Base Voltage	BC546	6	V
	BC547	6	
	BC548	5	
Collector Current	BC546	100	mA
	BC547	100	
	BC548	100	
Emitter Current	BC546	-100	mA
	BC547	-100	
	BC548	-100	
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature Range	T_{stg}	-55~150	$^{\circ}C$



BC546/7/8

ELECTRICAL CHARACTERISTICS (Ta=25°C)

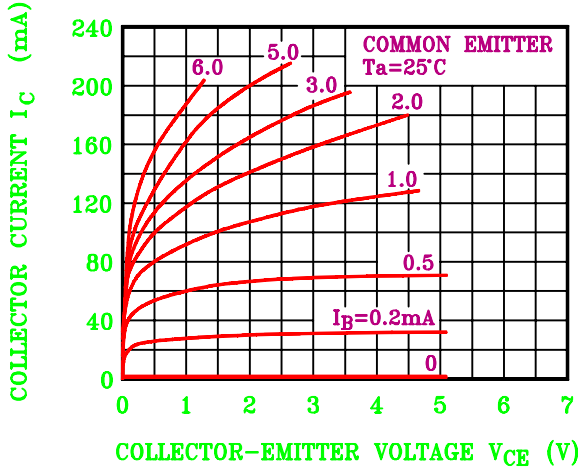
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=30V, I_E=0$	-	-	15	nA
DC Current Gain (Note)	BC546	$V_{CE}=5V, I_C=2mA$	110	-	450	
	BC547		110	-	800	
	BC548		110	-	800	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=5mA$	-	-	0.6	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=100mA, I_B=5mA$	-	0.9	1.1	V
Base-Emitter Voltage	$V_{BE(ON1)}$	$V_{CE}=5V, I_C=2mA$	0.58	-	0.7	V
	$V_{BE(ON2)}$	$V_{CE}=5V, I_C=10mA$	-	-	0.75	V
Transition Frequency	f_T	$V_{CE}=5V, I_C=10mA, f=100MHz$	-	150	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, f=1MHz$	-	-	4.5	pF
Noise Figure	NF	$V_{CE}=6V, I_C=0.1mA, R_g=10k\Omega, f=1kHz$	-	1.0	10	dB

NOTE : According to the value of h_{FE} the BC546, BC547, BC548 are classified as follows.

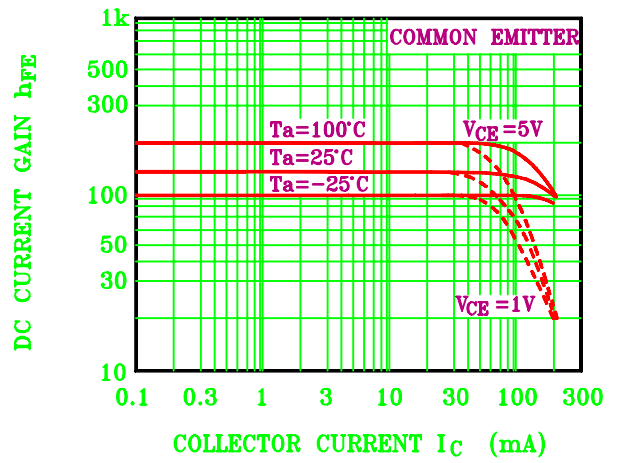
CLASSIFICATION		none	A	B	C
h_{FE}	BC546	110~450	110~220	200~450	-
	BC547	110~800	110~220	200~450	420~800
	BC548	110~800	110~220	200~450	420~800

BC546/7/8

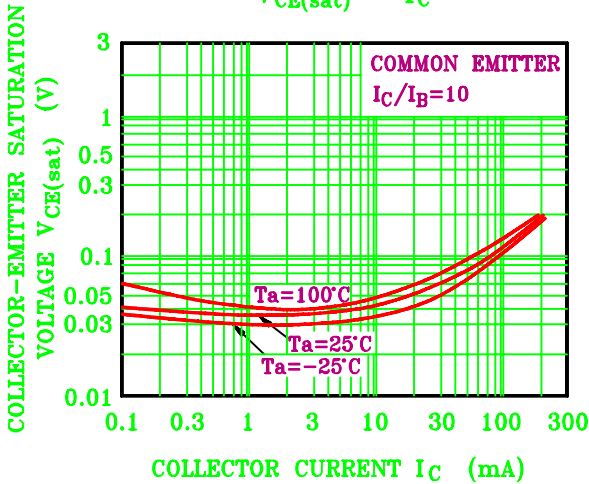
$I_C - V_{CE}$ (LOW VOLTAGE REGION)



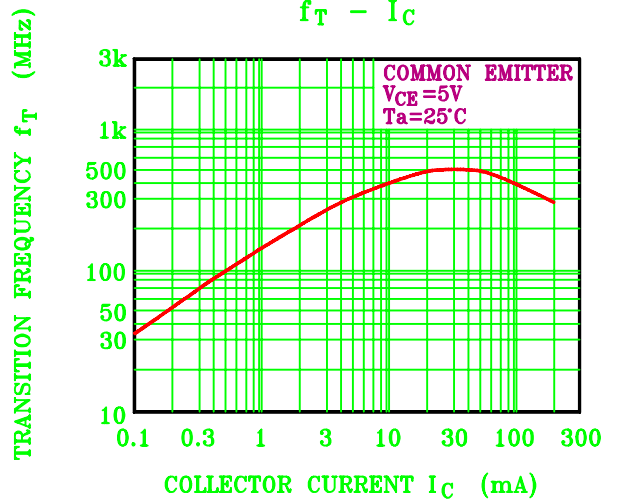
$h_{FE} - I_C$



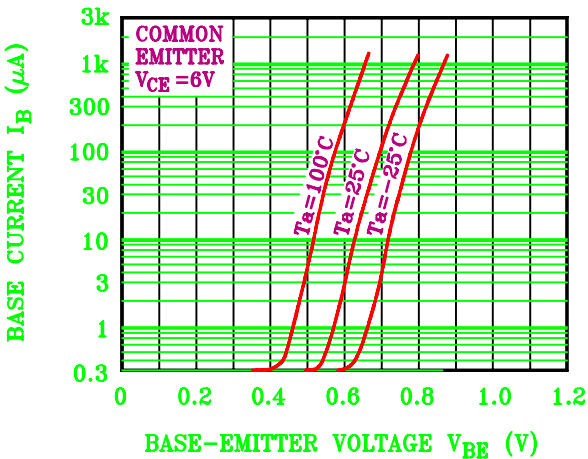
$V_{CE(sat)} - I_C$



$f_T - I_C$



$I_B - V_{BE}$



$P_C - T_a$

