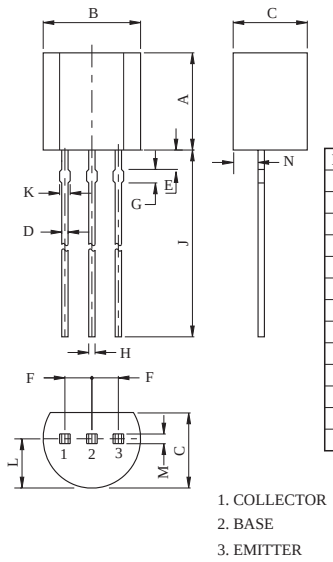
BC556/7/8

EPITAXIAL PLANAR PNP TRANSISTOR

GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION .

FEATURES

· For Complementary With NPN Type BC546/547/548.



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

TO-92

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage	BC556	V_{CBO}	-80	V
	BC557		-50	
	BC558		-30	
Collector-Emitter Voltage	BC556	V_{CEO}	-65	V
	BC557		-45	
	BC558		-30	
Emitter-Base Voltage	BC556	V_{EBO}	-5	V
	BC557		-5	
	BC558		-5	
Collector Current	BC556	I_C	-100	mA
	BC557		-100	
	BC558		-100	
Emitter Current	BC556	I_E	100	mA
	BC557		100	
	BC558		100	
Collector Power Dissipation		P_C	625	mW
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	-55～150	℃

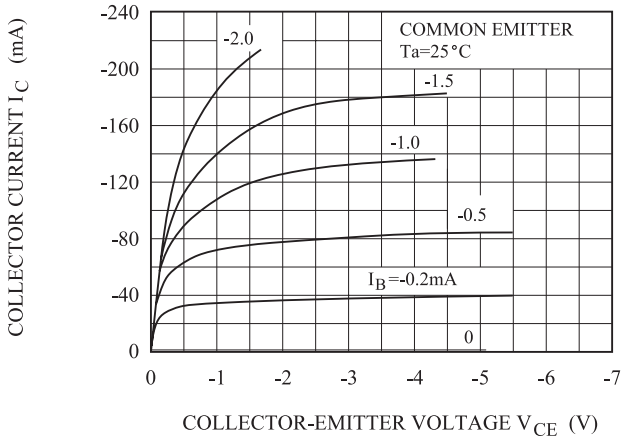
ELECTRICAL CHARACTERISTICS (Ta=25℃)

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)	BC556	h_{FE}	V_{CE}=-5V, I_C=-2mA	110	-	450	
	BC557			110	-	800	
	BC558			110	-	800	
Collector-Emitter Saturation Voltage	BC556	$V_{CE(sat)}$	I_C=-100mA, I_B=-5mA	-	-	-0.65	V
	BC557			-	-	-0.65	
	BC558			-	-	-0.65	
Base-Emitter Saturation Voltage	BC556	$V_{BE(sat)}$	I_C=-100mA, I_C=-5mA	-	-0.9	-1.1	V
	BC557			-	-0.9	-1.1	
	BC558			-	-0.9	-1.1	
Base-Emitter Voltage		$V_{BE(ON)}$ 1	V_{CE}=-5V, I_C=-2mA	-0.6	-	-0.75	V
		$V_{BE(ON)}$ 2	V_{CE}=-5V, I_C=-10mA	-	-	-0.8	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, I_E=0	-	4.5	-	pF
Noise Figure	BC556	NF	V_{CE}=-6V, I_C=-0.1mA R_g=10kΩ, f=1kHz	-	1.0	10	dB
	BC557			-	1.0	10	
	BC558			-	1.0	10	

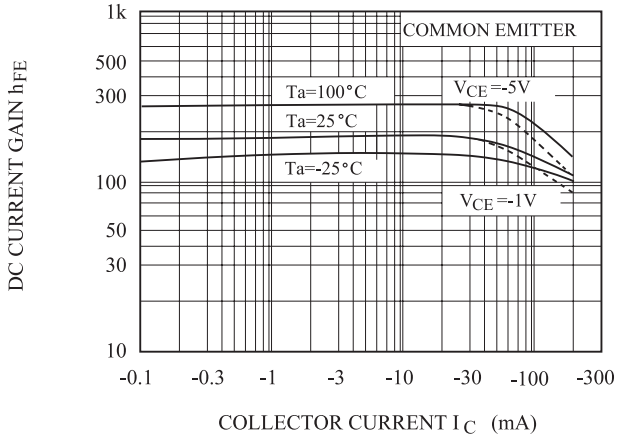
NOTE : According to the value of h_{FE} the BC546, BC547, BC548 are classified as follows.

CLASSIFICATION		none	A	B	C
h_{FE}	BC556	110～450	110～220	200～450	-
	BC557	110～800	110～220	200～450	420～800
	BC558	110～800	110～220	200～450	420～800

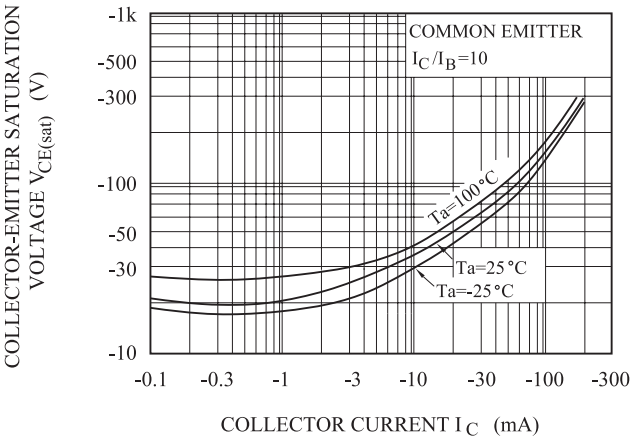
I_C - V_{CE}



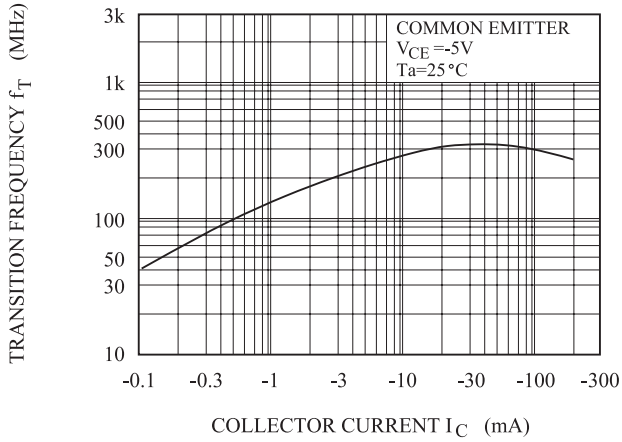
h_{FE} - I_C



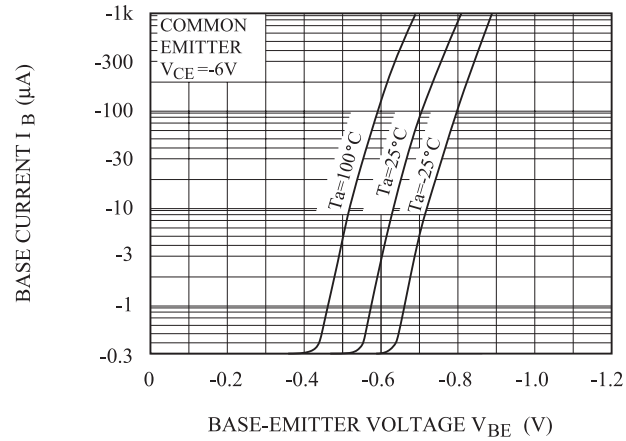
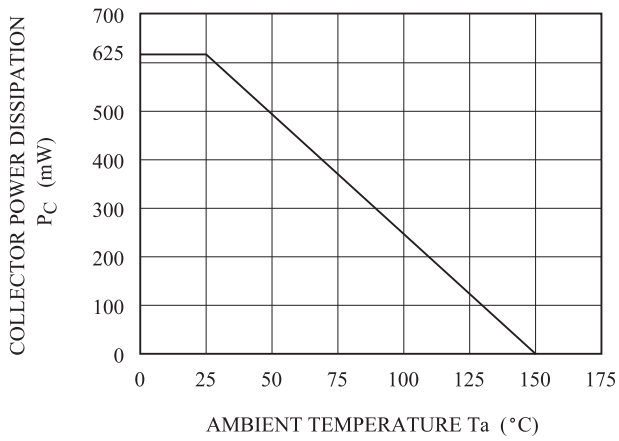
$V_{CE(sat)}$ - I_C



f_T - I_C



I_B - V_{BE}



P_C - Ta