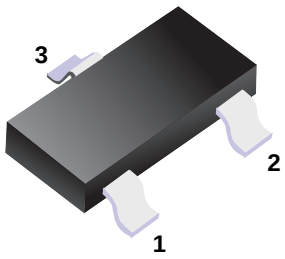
BC856-BC858

PNP Transistors



1.Base
2.Emitter
3.Collector

■ Simplified outline(SOT-23)

■ Features

- Ideally suited for automatic insertion
- For Switching and AF Amplifier Applications

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	BC856	BC857	BC858	Unit
Collector - Base Voltage	V_{CBO}	-80	-50	-30	V
Collector - Emitter Voltage	V_{CEO}	-65	-45	-30	
Emitter - Base Voltage	V_{EBO}	-5			
Collector Current - Continuous	I_C	-100			mA
Collector Power Dissipation	P_C	200			mW
Junction Temperature	T_J	150			℃
Storage Temperature range	T_{stg}	-55 to 150			

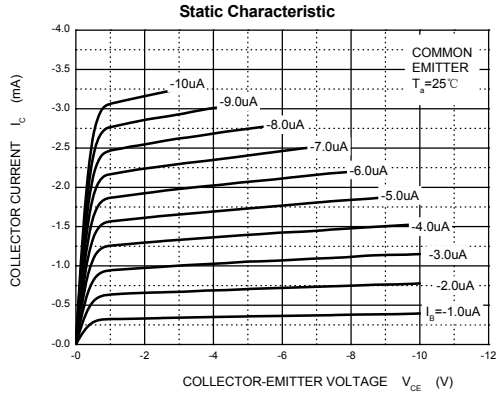
■ Electrical Characteristics Ta = 25℃

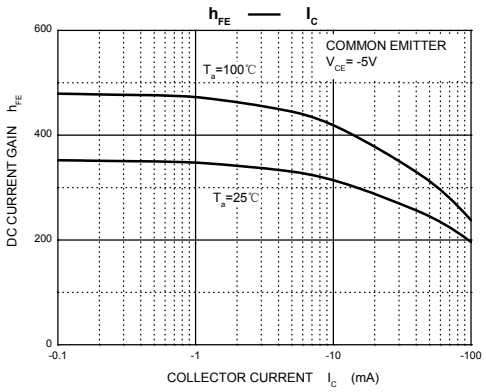
Parameter		Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	BC856	V_{CBO}	I_C= -100 μA, I_E=0	-80			V
	BC857			-50			
	BC858			-30			
Collector- emitter breakdown voltage	BC856	V_{CEO}	I_C= -1mA, I_B=0	-65			
	BC857			-45			
	BC858			-30			
Emitter - base breakdown voltage		V_{EBO}	I_E= -100 μ A, I_C=0	-5			
Collector-base cut-off current	BC856	I_{CBO}	V_{CB}= -70 V , I_E=0			-100	nA
	BC857		V_{CB}= -45 V , I_E=0				
	BC858		V_{CB}= -25 V , I_E=0				
Collector- emittercut-off current	BC856	I_{CEO}	V_{CE}= -55 V , I_E=0			-1	uA
	BC857		V_{CE}= -40 V , I_E=0				
	BC858		V_{CE}= -25 V , I_E=0				
Emitter cut-off current		I_{EBO}	V_{EB}= -5V , I_C=0			-100	nA
Collector-emitter saturation voltage		$V_{CE(sat)}$	I_C=-100 mA, I_B=-5mA			-0.5	V
Base - emitter saturation voltage		$V_{BE(sat)}$	I_C=-100 mA, I_B=-5mA			-1.1	
DC current gain	BC856A,857A,858A	h_{FE}	V_{CE}= -5V, I_C= -2mA	125		250	
	BC856B,857B,858B			220		475	
	BC856C,857C,858C			420		800	
Collector output capacitance		C_{ob}	V_{CB}= -10V, f=1MHz			4.5	pF
Transition frequency		f_T	V_{CE}= -5V, I_C= -10mA,f=100MHz	100			MHz

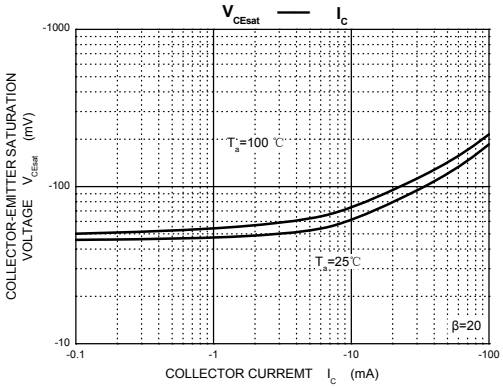
■ Classification of h_{fe}

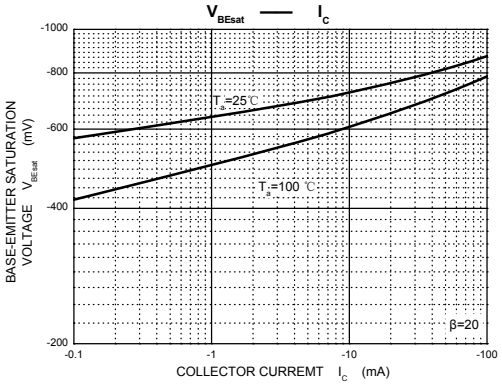
Type	BC856A	BC856B	BC856C	BC857A	BC857B	BC857C	BC858A	BC858B	BC858C
Range	125-250	220-475	420-800	125-250	220-475	420-800	125-250	220-475	420-800
Marking	3A	3B	3C	3E	3F	3G	3J	3K	3L

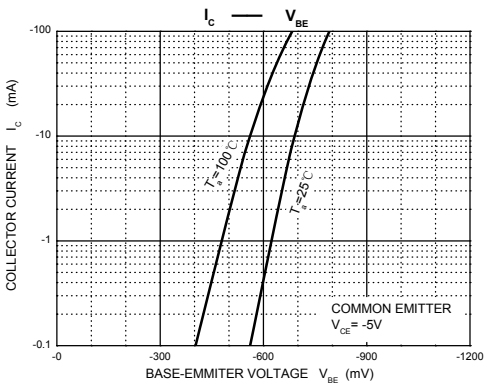
■ Typical Characterisitics

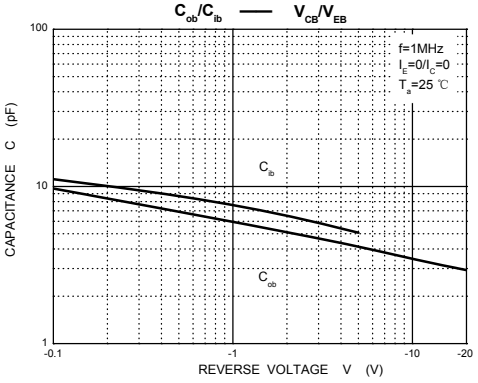


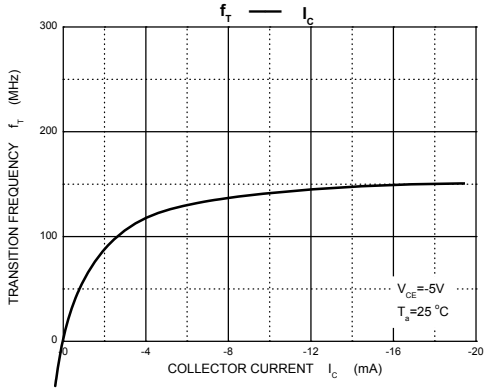


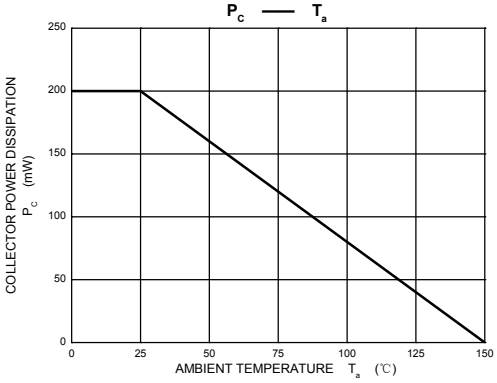




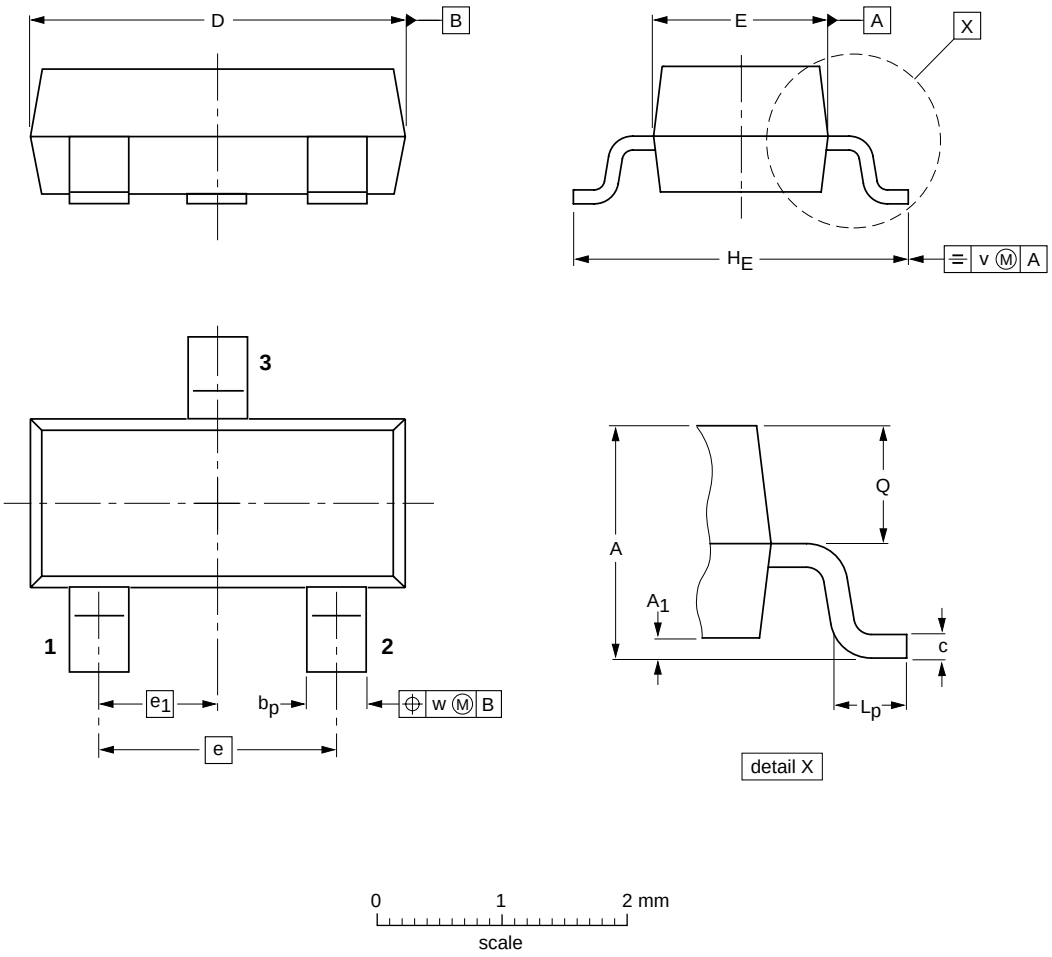








■ SOT-23



DIMENSIONS (mm are the original dimensions)

UNIT	A	A_1 max.	b_p	c	D	E	e	e_1	H_E	L_p	Q	v	w
mm	1.1 0.9	0.1	0.48 0.38	0.15 0.09	3.0 2.8	1.4 1.2	1.9	0.95	2.5 2.1	0.45 0.15	0.55 0.45	0.2	0.1