

BC856/BC857/BC858 TRANSISTOR(PNP) SOT-23 Plastic-Encapsulate Transistors

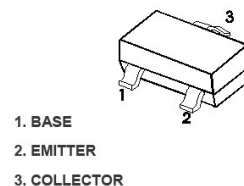
SOT-23

Features

- Complementary to BC846/BC847/BC848
- Power Dissipation of 200mW
- Ideally suited for automatic insertion
- For switching and AF amplifier applications

Mechanical Data

- Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: Any



Marking:

BC856A=3A	BC856B=3B	
BC857A=3E	BC857B=3F	BC857C=3G
BC858A=3J	BC858B=3K	BC858C=3L

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

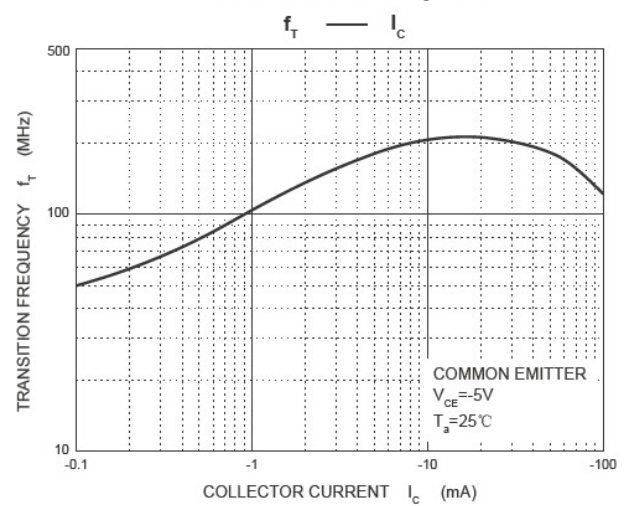
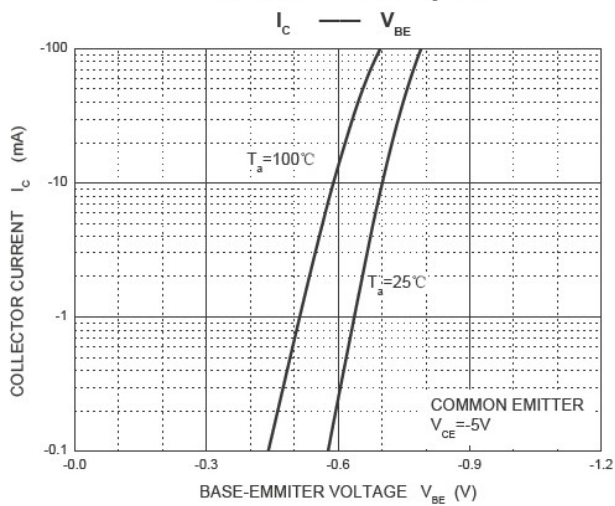
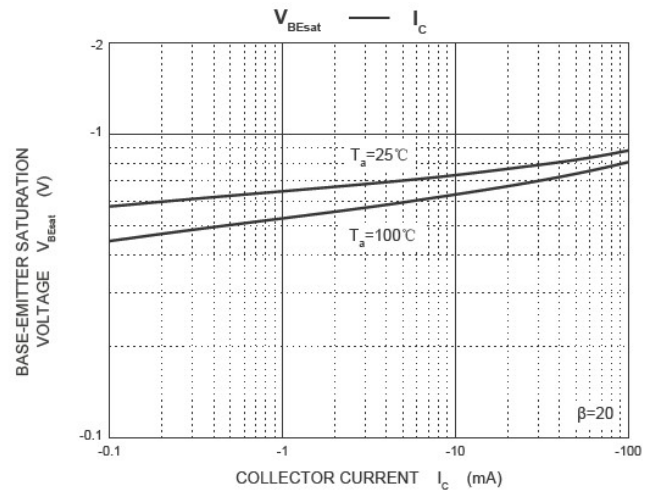
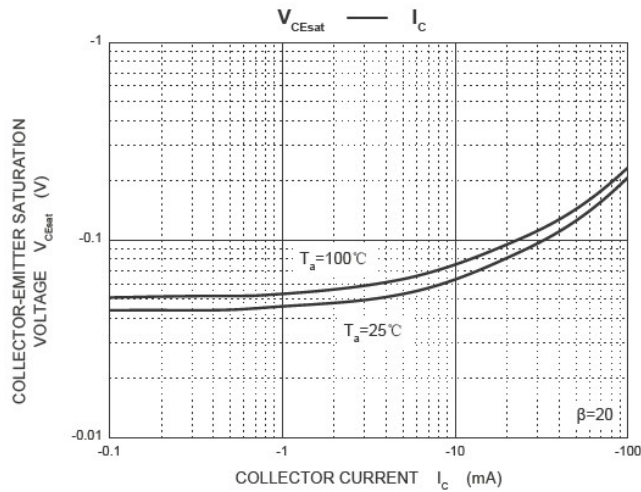
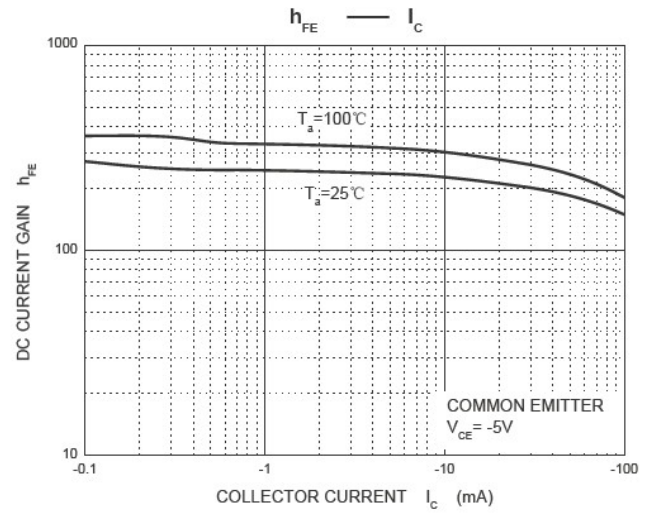
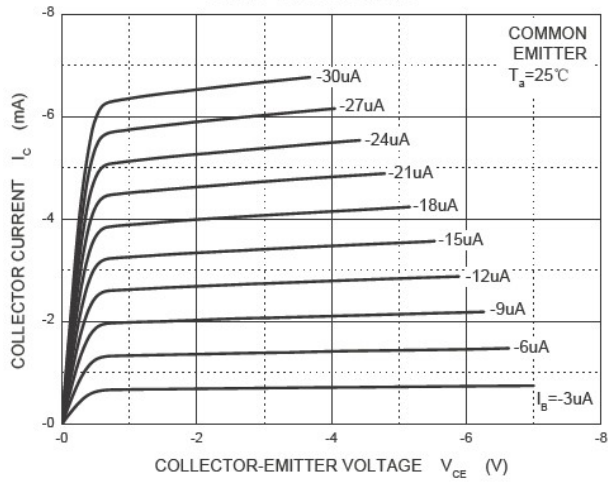
Parameters	Symbol		Value	Unit
Collector-Base Voltage	V_{CB0}	BC856 BC857 BC858	-80 -50 -30	V
Collector-Emitter Voltage	V_{CEO}	BC856 BC857 BC858	-65 -45 -30	V
Emitter -Base Voltage	V_{EBO}		-6	V
Collector Current-Continuous	I_C		-100	mA
Collector Power Dissipation	P_C		200	mW
Junction Temperature	T_j		150	°C
Storage Temperature	T_{stg}		-55-+150	°C
Thermal resistance From junction to ambient	$R_{\theta JA}$		625	°C/W

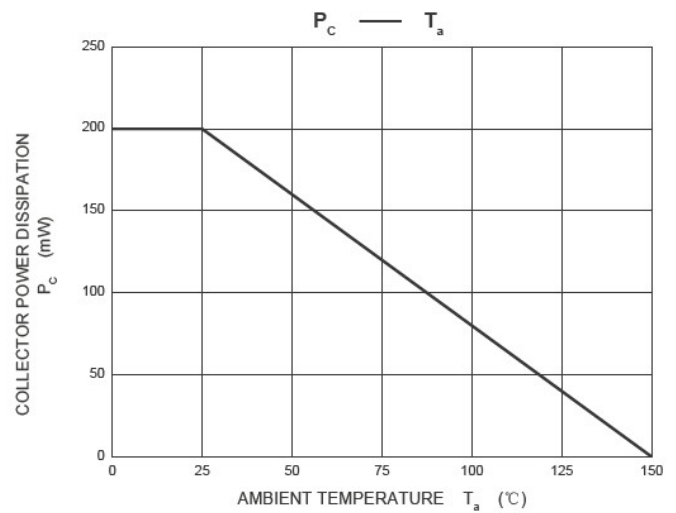
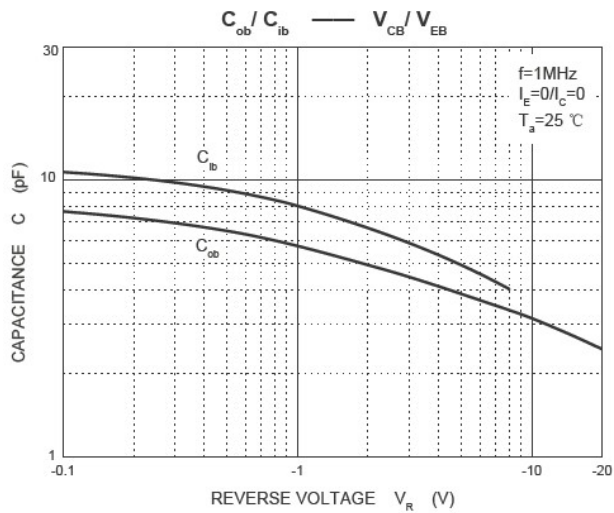
Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$ BC856 BC857 BC858	-80 -50 -30		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10mA, I_B = 0$ BC856 BC857 BC858	-65 -45 -30		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10\mu A, I_C = 0$	-6		V
Collector cut-off current	I_{CBO}	$V_{CB} = -70V, I_E = 0$ BC856 $V_{CB} = -45V, I_E = 0$ BC857 $V_{CB} = -25V, I_E = 0$ BC858		-100	nA
Collector cut-off current	I_{CEO}	$V_{CE} = -60V, I_B = 0$ BC856 $V_{CE} = -40V, I_B = 0$ BC857 $V_{CE} = -25V, I_B = 0$ BC858		-100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$		-100	nA
DC current gain	h_{FE}	$V_{CE} = -5V, I_C = -2mA$ BC856A;BC857A;BC858A BC856B;BC857B;BC858B BC857C;BC858C	125 220 420	250 475 800	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100mA, I_B = -5mA$		-0.50	V
Base -emitter saturation voltage	$V_{BE(sat)}$	$I_C = -100mA, I_B = -5mA$		-1.10	V
Transition frequency	f_T	$V_{CE} = -5V, I_C = -10mA, f = 100MHz$	100		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V, f = 1MHz$		4.5	pF

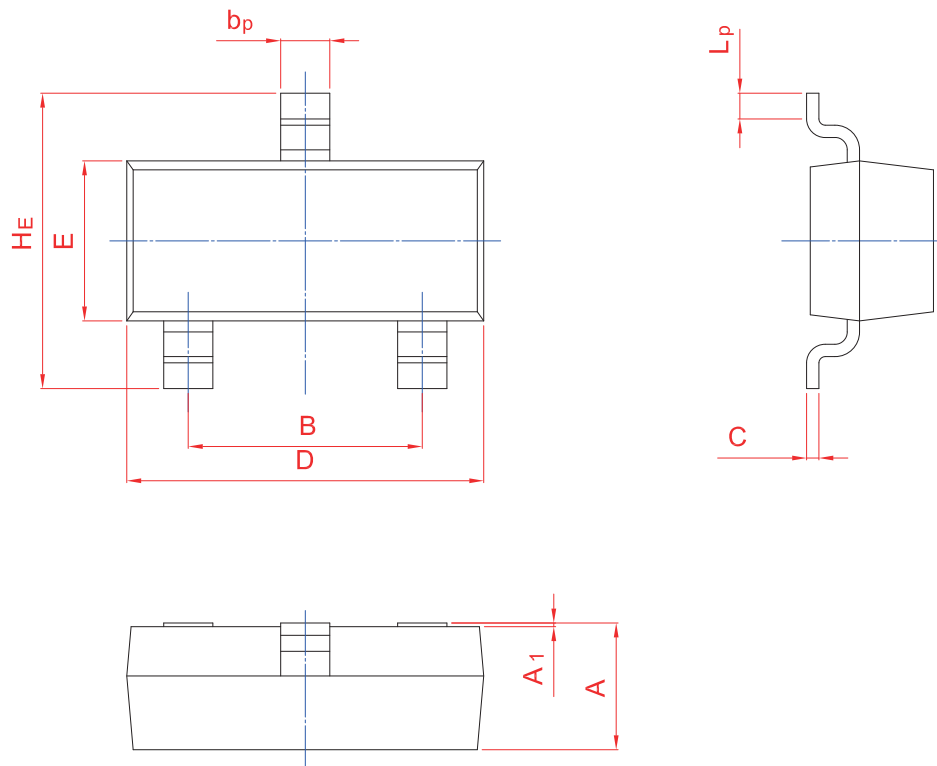
Typical characteristics

Static Characteristic





SOT-23 PACKAGE OUTLINE Plastic surface mounted package



UNIT	A	B	b_p	C	D	E	H_E	A_1	L_p
mm	1.40 0.89	2.04 1.78	0.51 0.30	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20