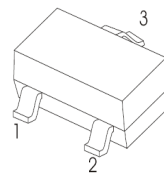




SOT-23 Plastic-Encapsulate Transistors

TRANSISTOR (PNP)

SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

FEATURES

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

MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage		
	BC856	-80	V
	BC857	-50	
	BC858	-30	
V_{CEO}	Collector-Emitter Voltage		
	BC856	-65	V
	BC857	-45	
	BC858	-30	
V_{EBO}	Emitter-Base Voltage	-5	V
I_{C}	Collector Current –Continuous	-0.1	A
P_{C}	Collector Power Dissipation	200	mW
$R_{\theta\text{JA}}$	Thermal Resistance From Junction To Ambient	625	$^{\circ}\text{C}/\text{W}$
T_{J}	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-65~+150	$^{\circ}\text{C}$

DEVICE MARKING

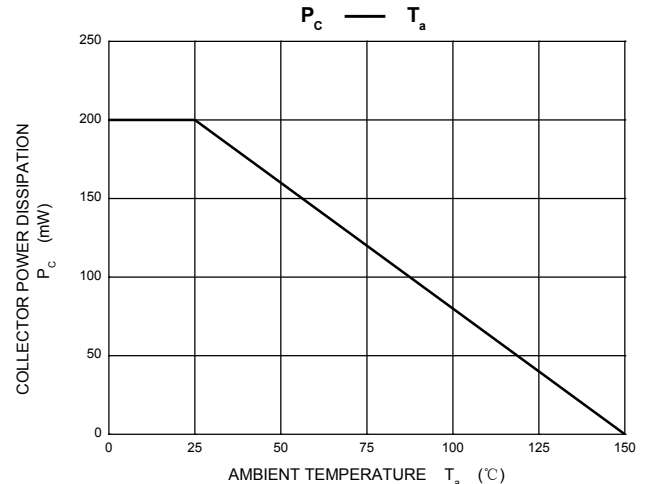
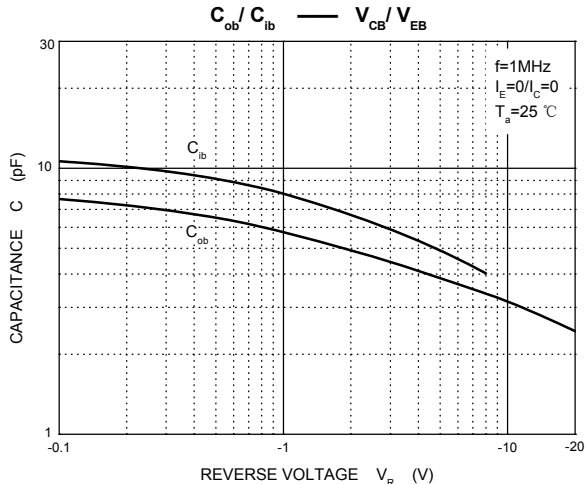
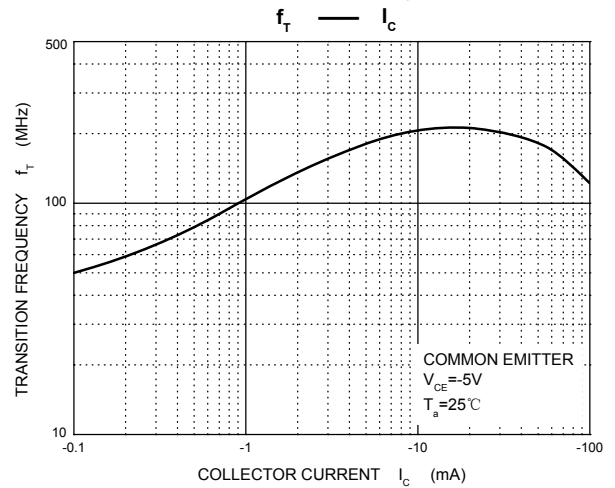
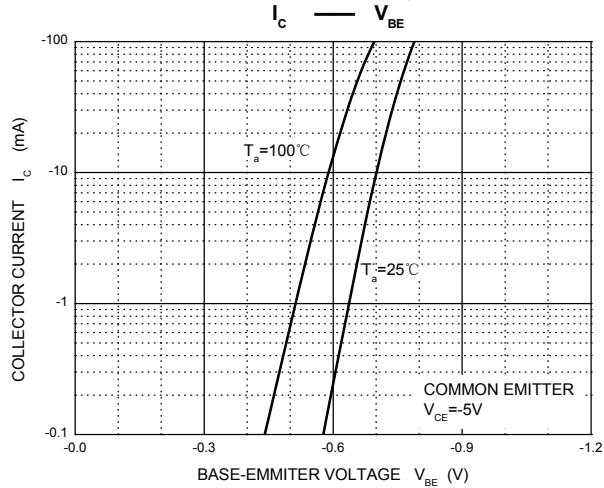
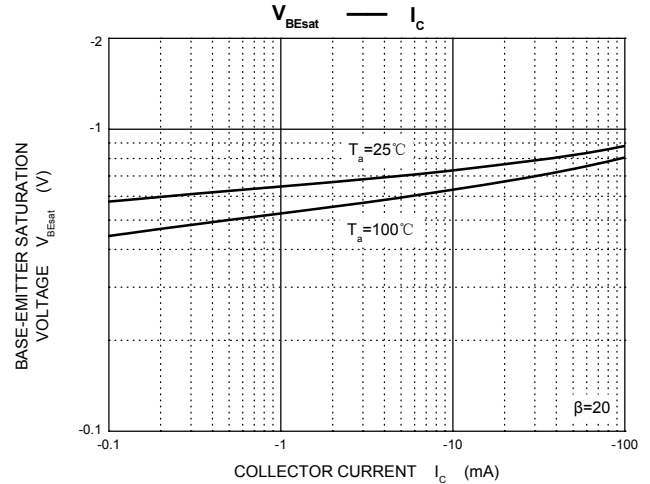
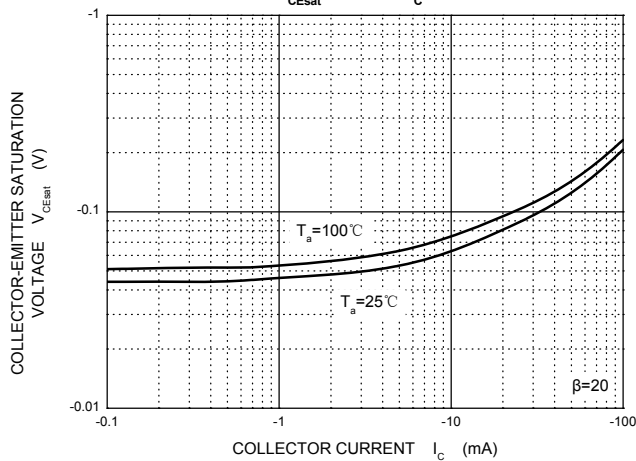
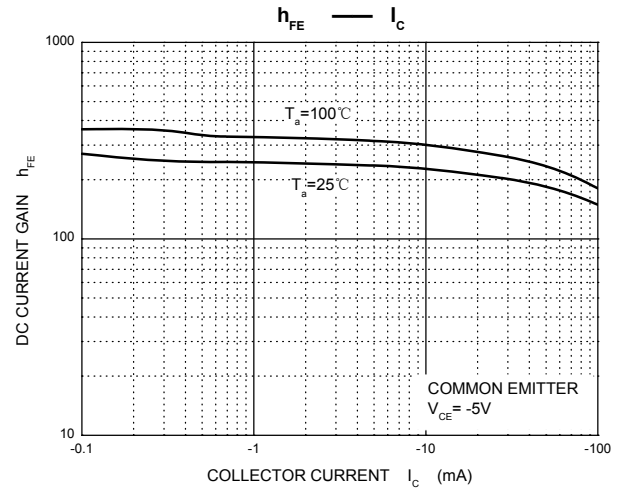
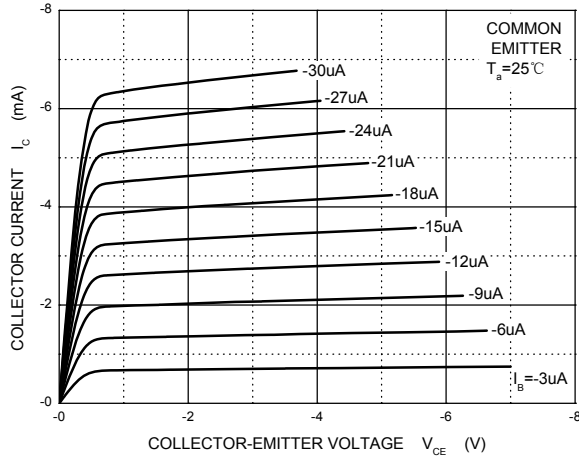
BC856A=3A; BC856B=3B;
 BC857A=3E; BC857B=3F; BC857C=3G;
 BC858A=3J; BC858B=3K; BC858C=3L

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage BC856 BC857 BC858	V _{CBO}	I _C = -10μA, I _E =0	-80 -50 -30		V
Collector-emitter breakdown voltage BC856 BC857 BC858	V _{CEO}	I _C = -10mA, I _B =0	-65 -45 -30		V
Emitter-base breakdown voltage	V _{EBO}	I _E = -1μA, I _C =0	-5		V
Collector cut-off current BC856 BC857 BC858	I _{CBO}	V _{CB} = -70 V, I _E =0 V _{CB} = -45 V, I _E =0 V _{CB} = -25 V, I _E =0		-0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} = -5 V, I _C =0		-0.1	μA
DC current gain BC856A, 857A,858A BC856B, 857B,858B BC857C,BC858C	h _{FE}	V _{CE} = -5V, I _C = -2mA	125 220 420	250 475 800	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-100mA, I _B = -5 mA		-0.5	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C = -100mA, I _B = -5mA		-1.1	V
Transition frequency	f _T	V _{CE} = -5 V, I _C = -10mA f=100MHz	100		MHz
Collector capacitance	C _{ob}	V _{CB} =-10V, f=1MHz		4.5	pF

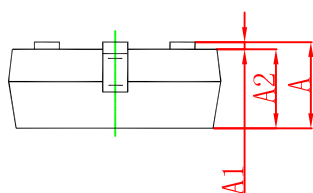
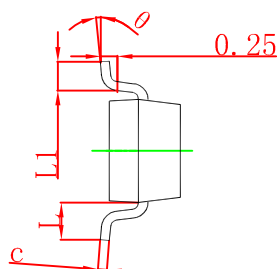
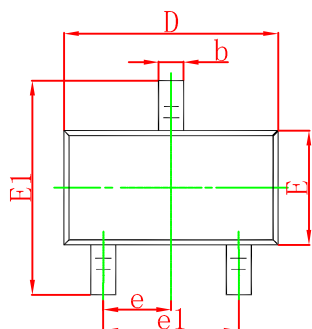
SOT-23 Plastic-Encapsulate Transistors

Static Characteristic



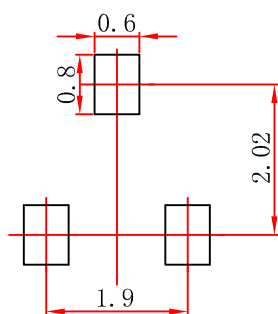


SOT-23 Plastic-Encapsulate Transistors



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

SOT-23 Package Outline Dimensions



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.