

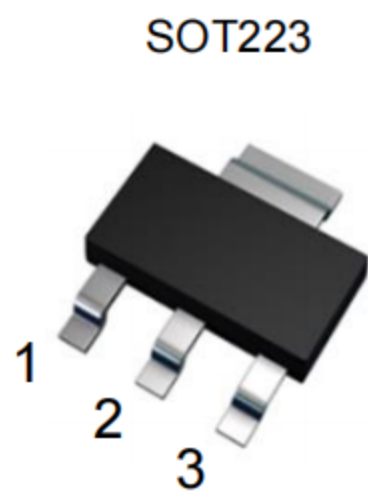


Features

- High Collector Current
- Low Collector-emitter Saturation Voltage

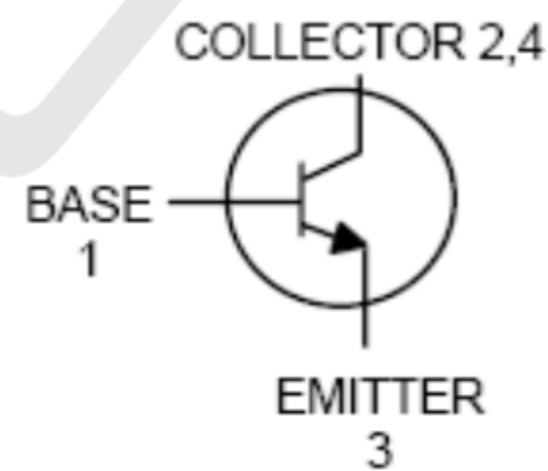
Mechanical Data

- Case: SOT-223
- Molding compound, UL flammability classification rating 94V-0
- Terminals: Matte tin plated leads, solderable per MIL-STD-202, Method 208



Marking:BCP55-16

Circuit Diagram



Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

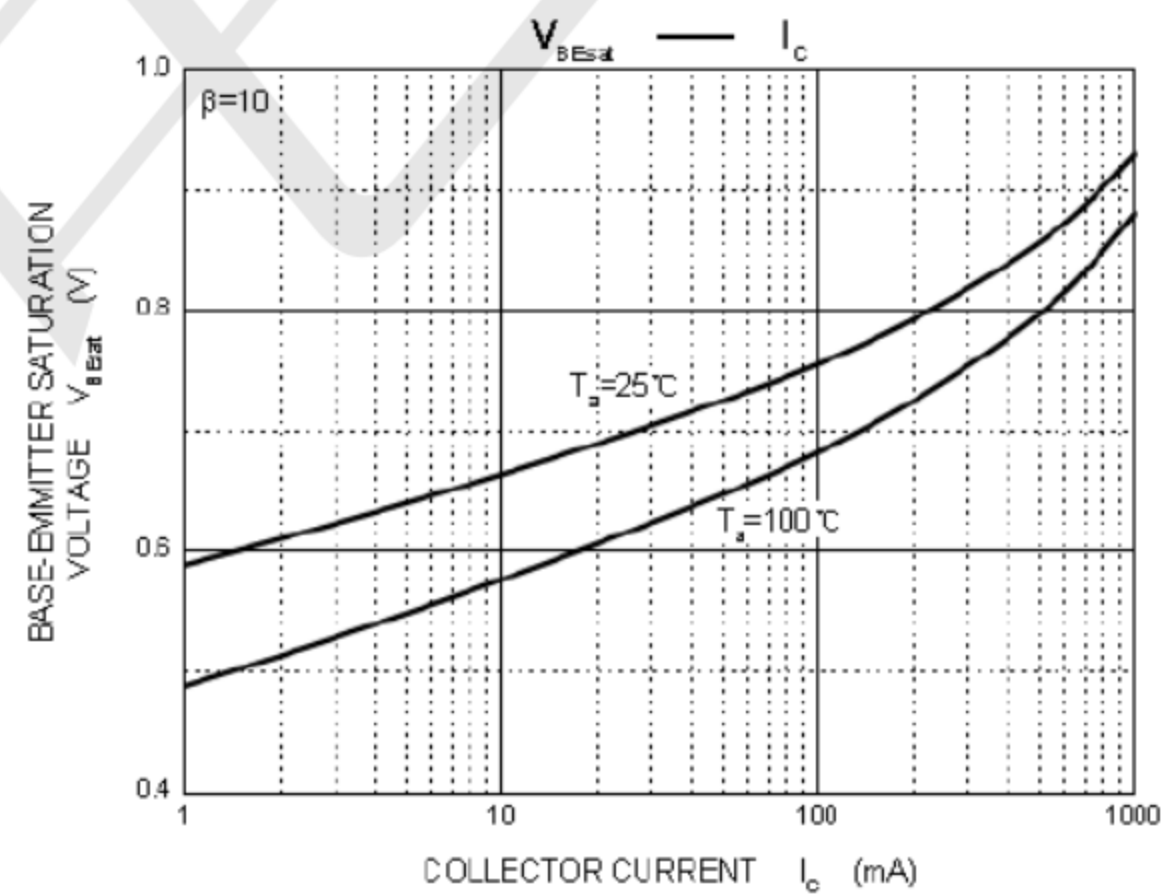
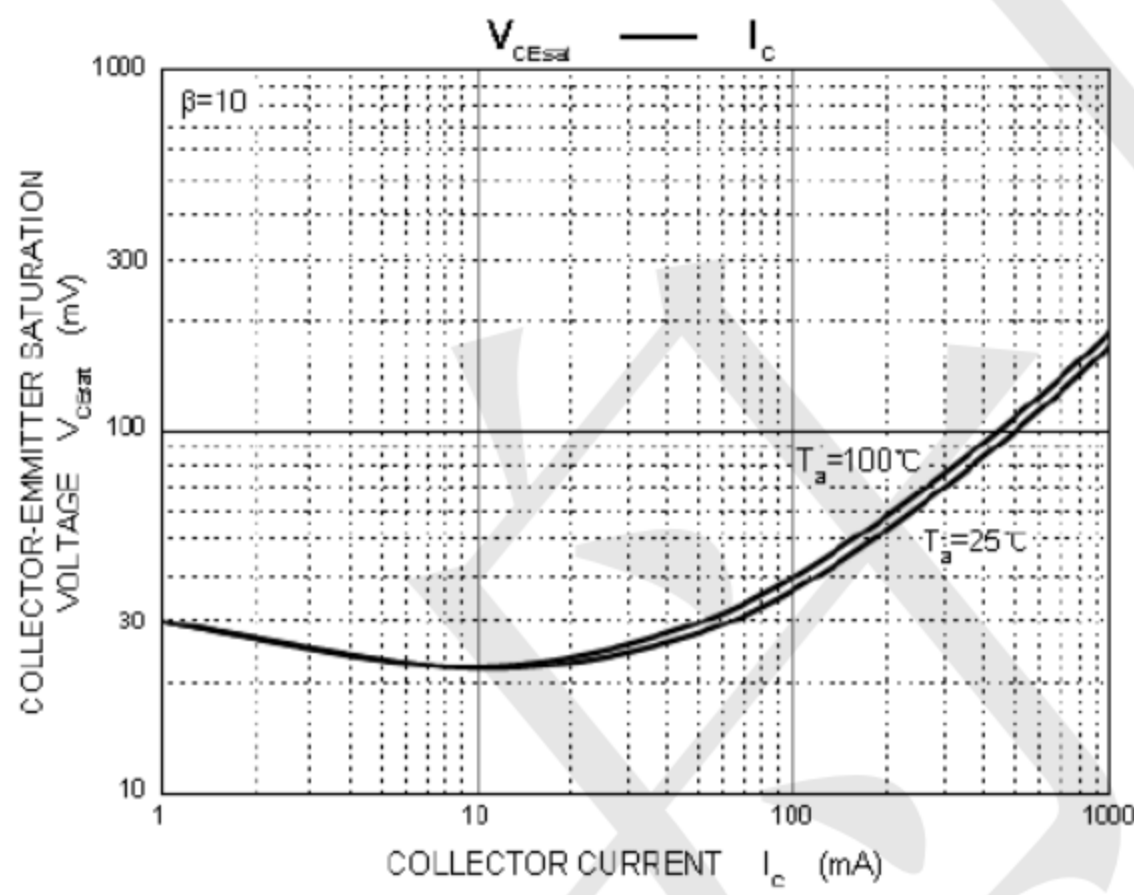
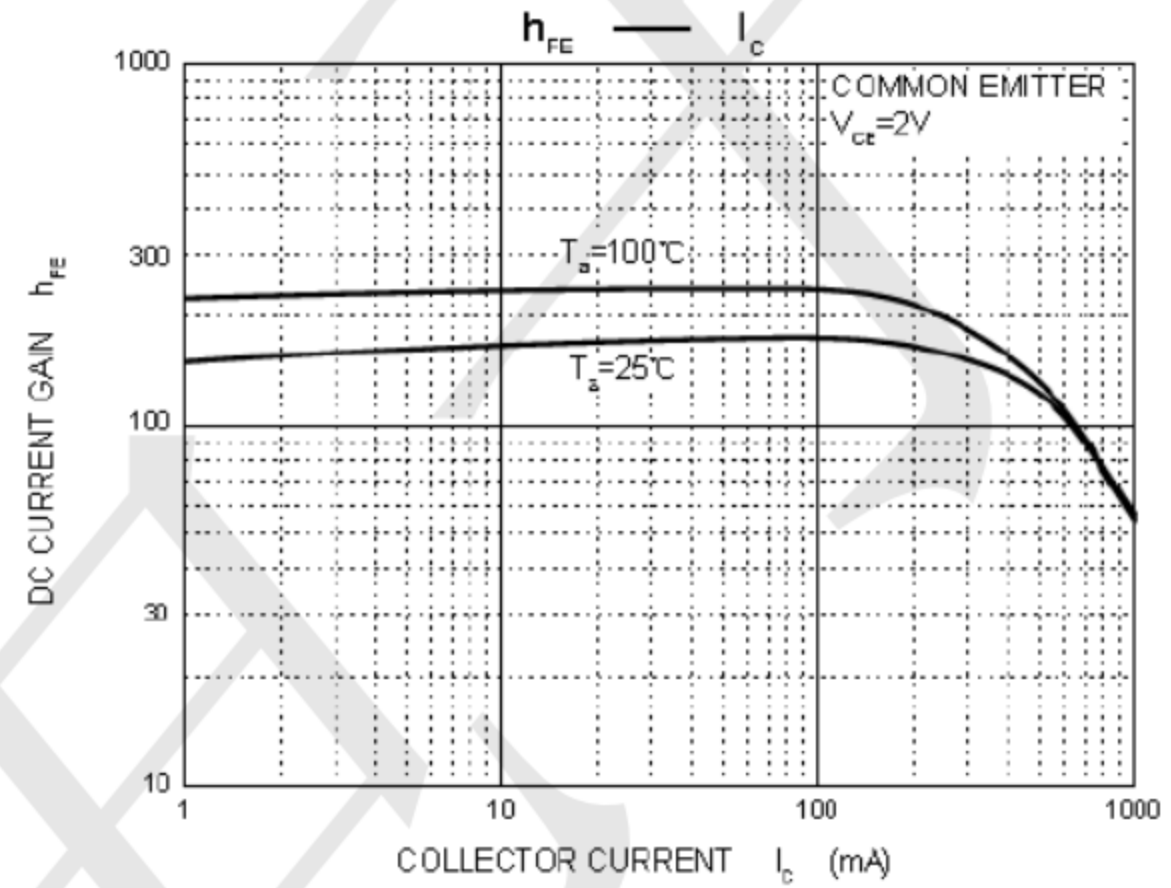
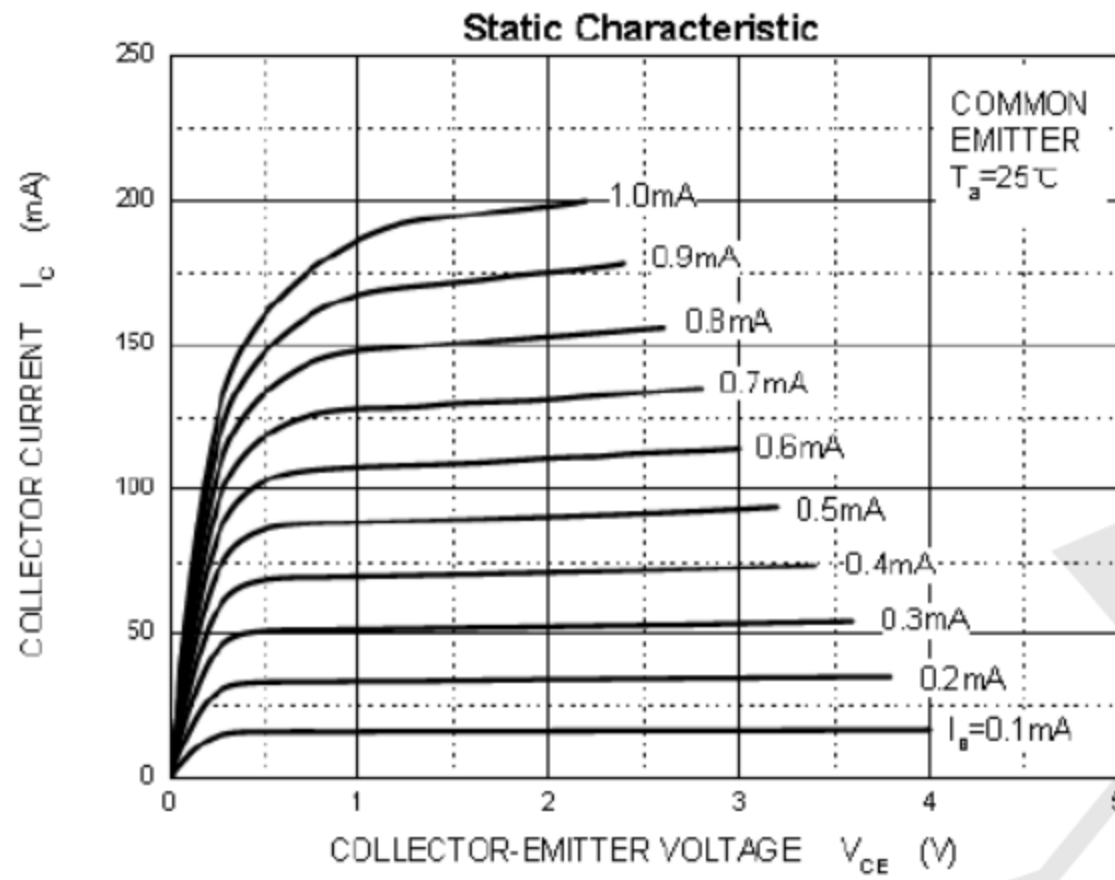
Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current - Continuous	1	A
I_{CM}	Peak Collector Current	1.5	A
I_B	Base Current	0.1	A
I_{BM}	Peak Base Current	0.2	A

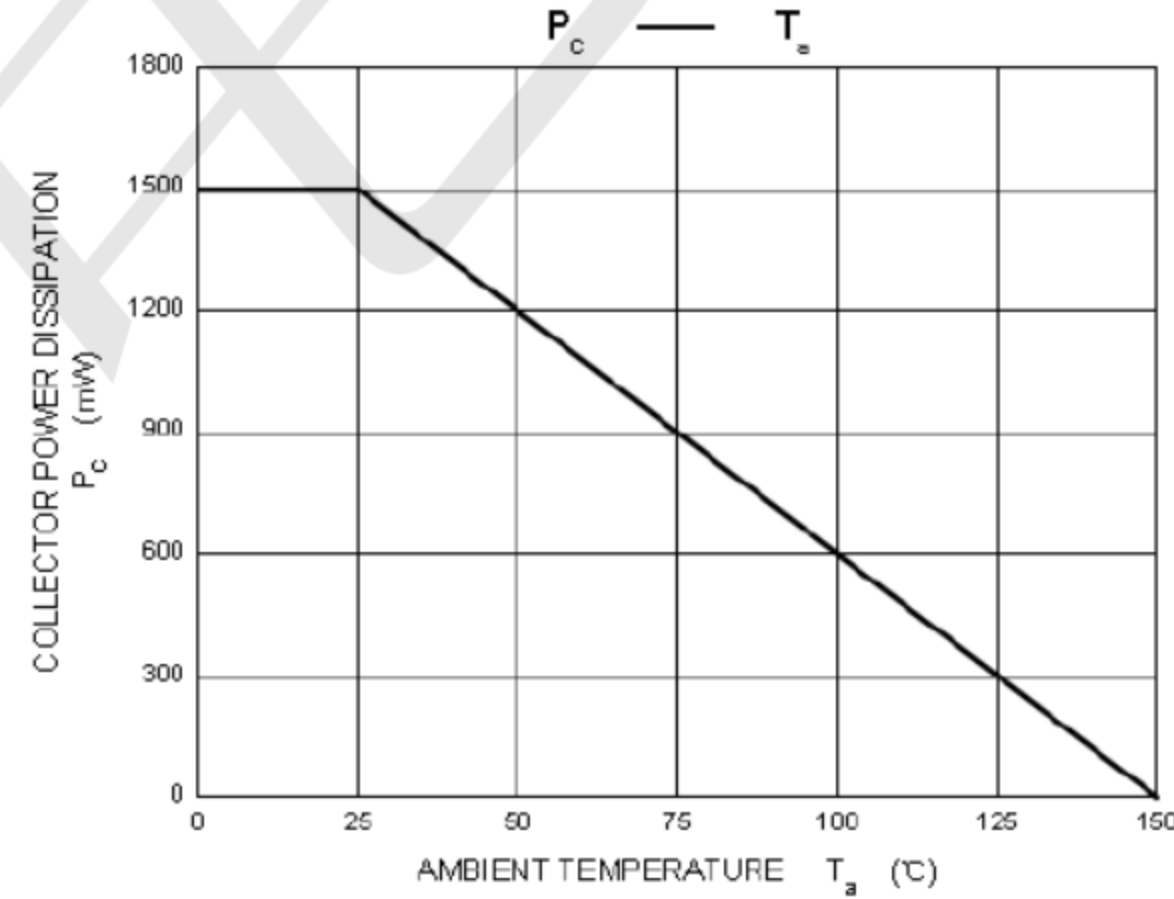
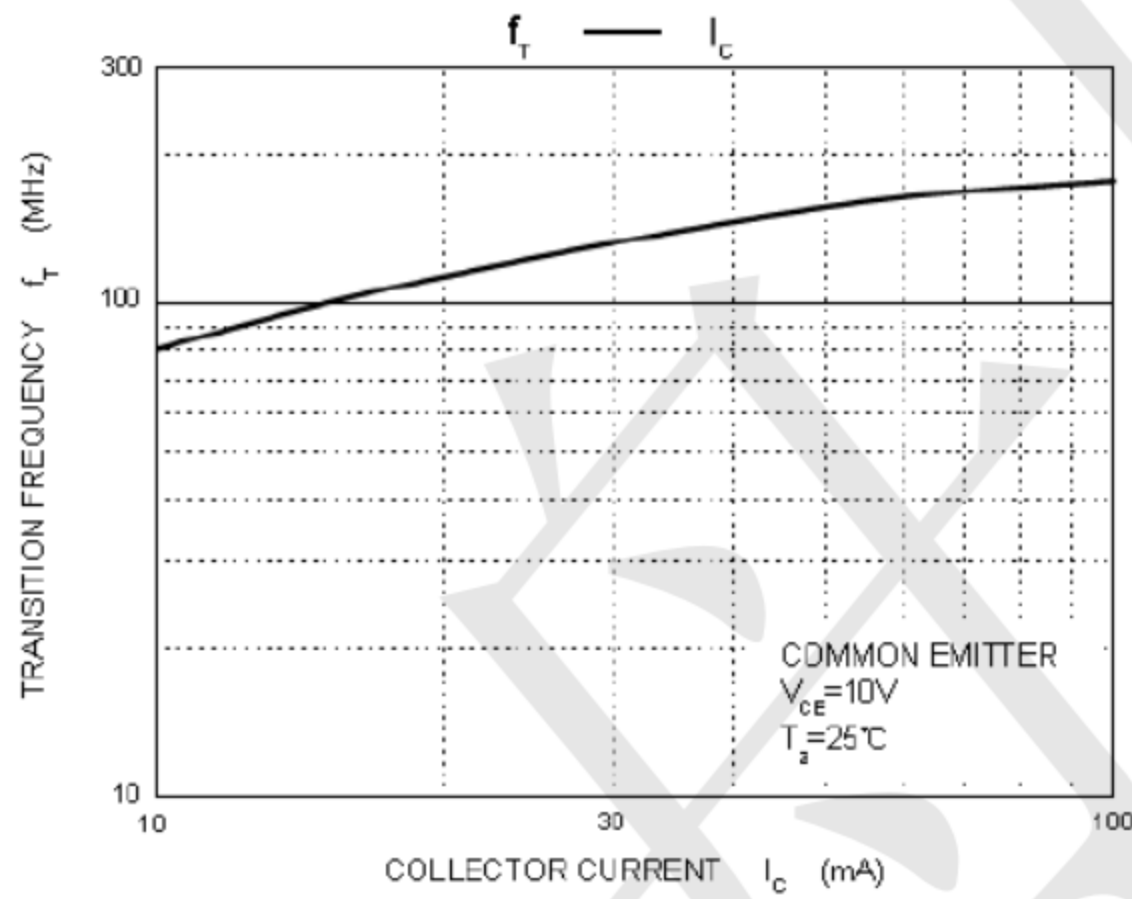
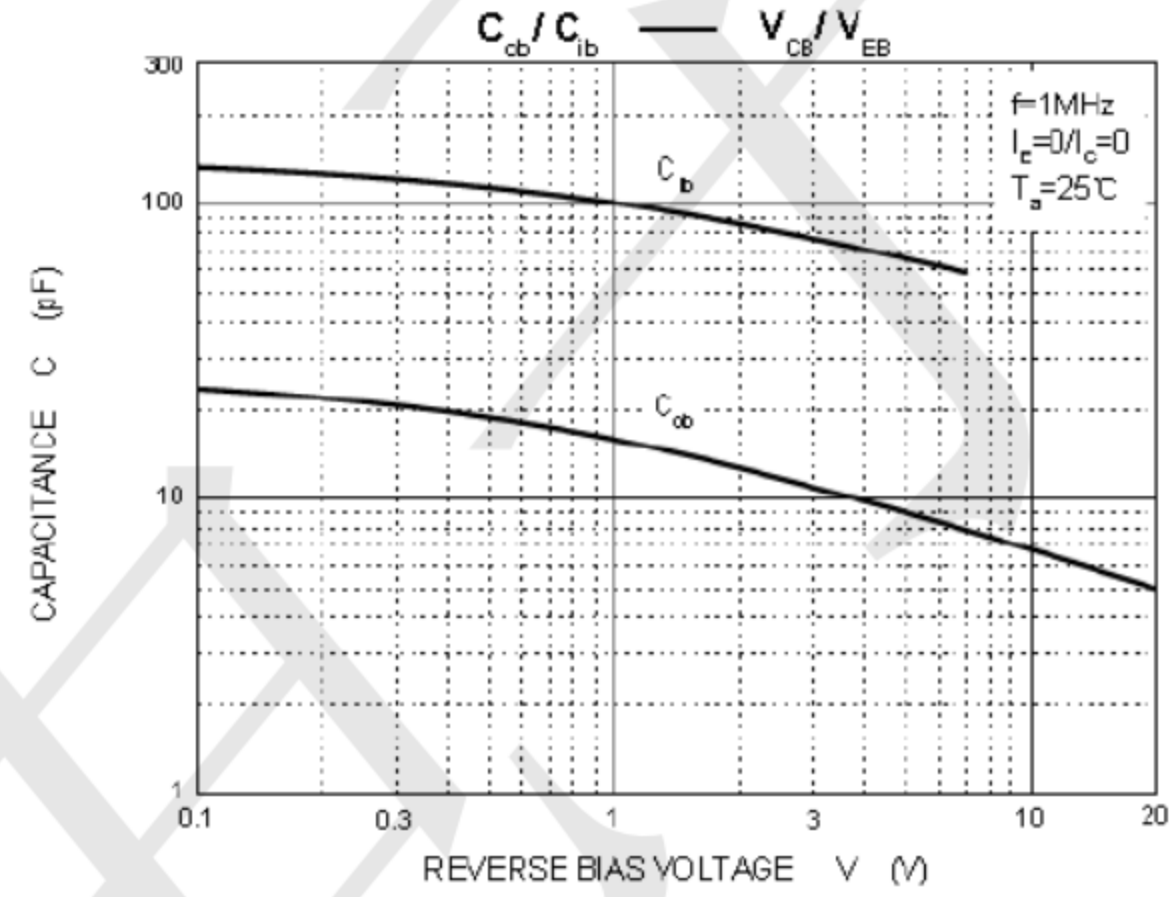
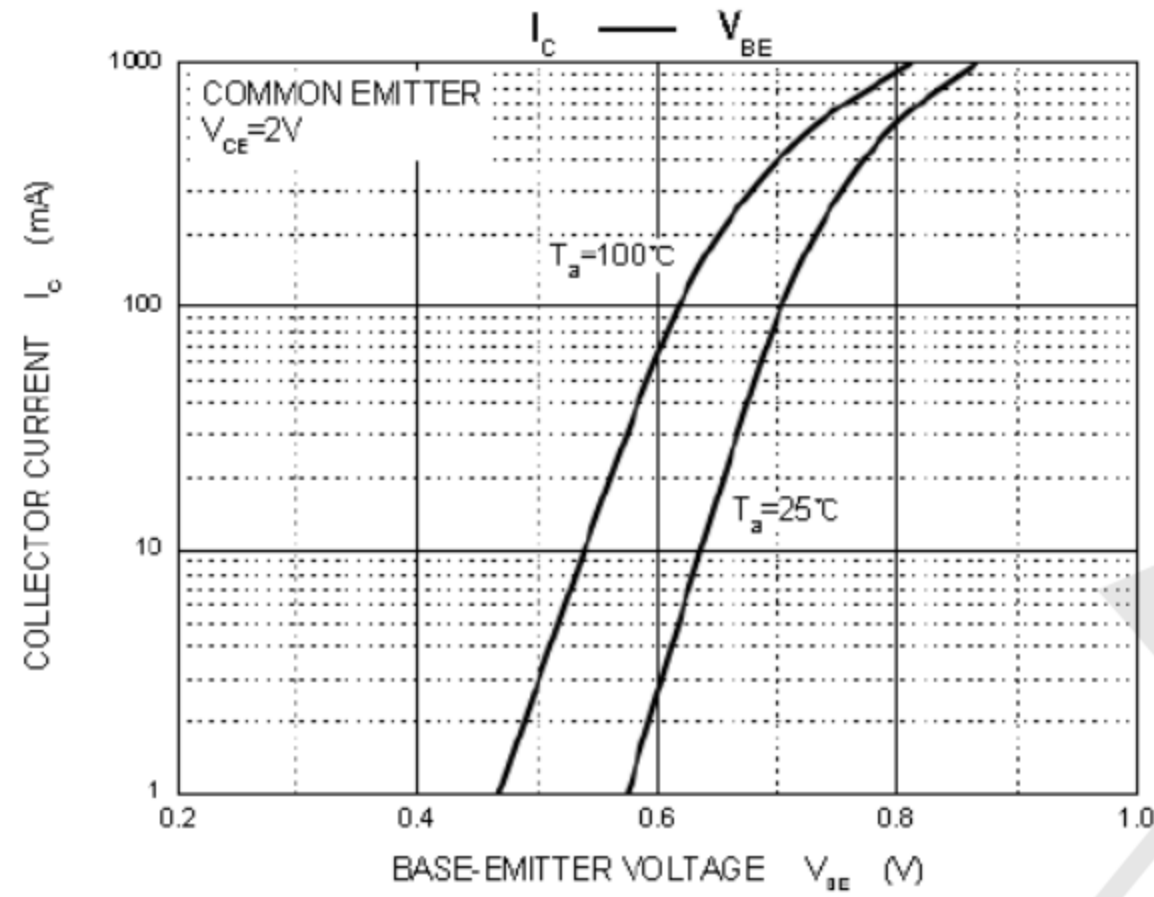
**Thermal Characteristic**

Symbol	TECH PUBLIC Parameter	Value	Units
P_D	Power Dissipation	1.5	W
$R_{\theta JA}$	Thermal Resistance From Junction to Ambient	83.3	°C/W
T_J	Junction Temperature	-55 to +150	°C
T_{STG}	Junction and Storage Temperature	-55 to +150	°C

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

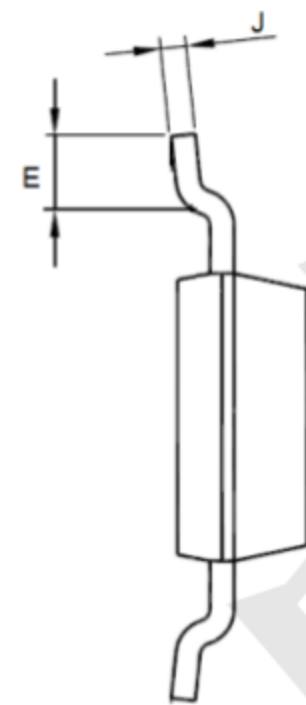
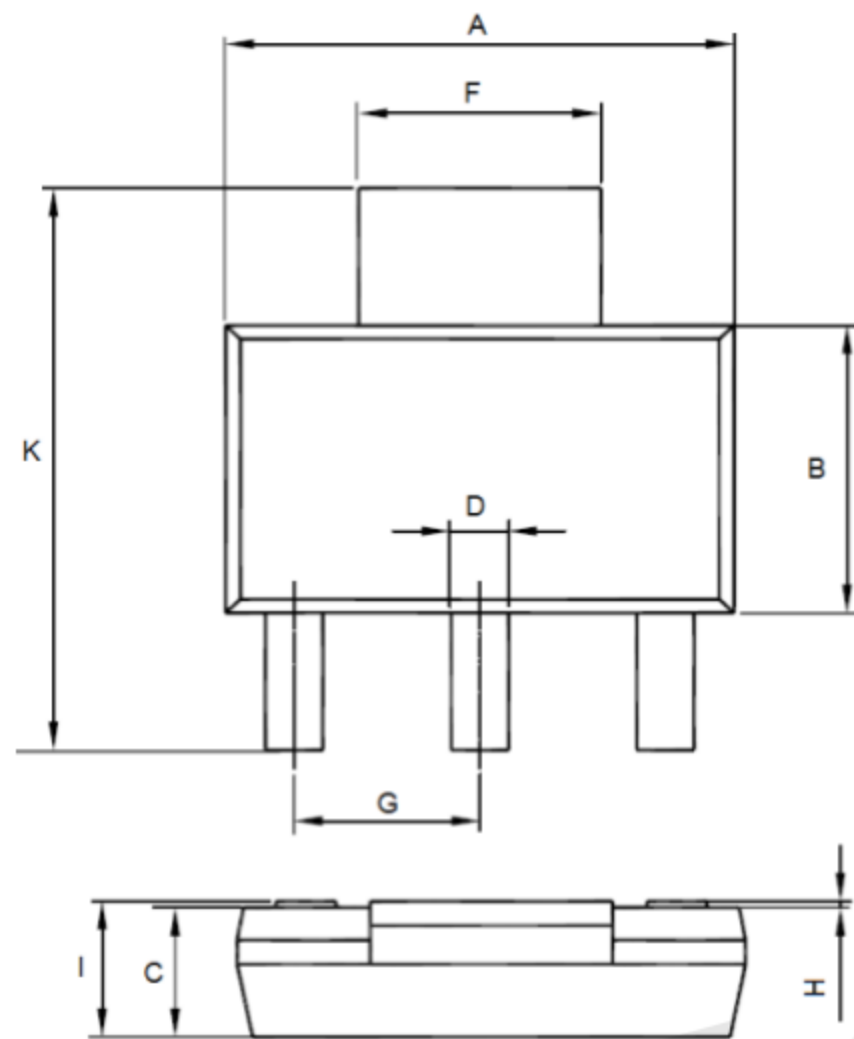
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector cut-off current	I_{CBO}	$V_{CB}=30V, I_E=0$	-	-	100	nA
Emitter cut-off current	I_{EBO}	$I_C=0, V_{EB}=5V$	-	-	100	nA
DC Current Gain	h_{FE}	$V_{CE}=2V, I_C=150\text{ mA}$	100	-	250	-
Collector-Emitter Saturation Voltage ^(Note 2)	$V_{CE(sat)}$	$I_C=0.5A, I_B=50\text{mA}$	-	-	0.5	V
Base-emitter Voltage	V_{BE}	$I_C=0.5A, V_{CE}=2V$	-	-	1	V
Transition frequency	f_T	$V_{CE}=10V, I_C=50\text{mA}$ $f=100\text{MHz}$	100	-	-	MHz



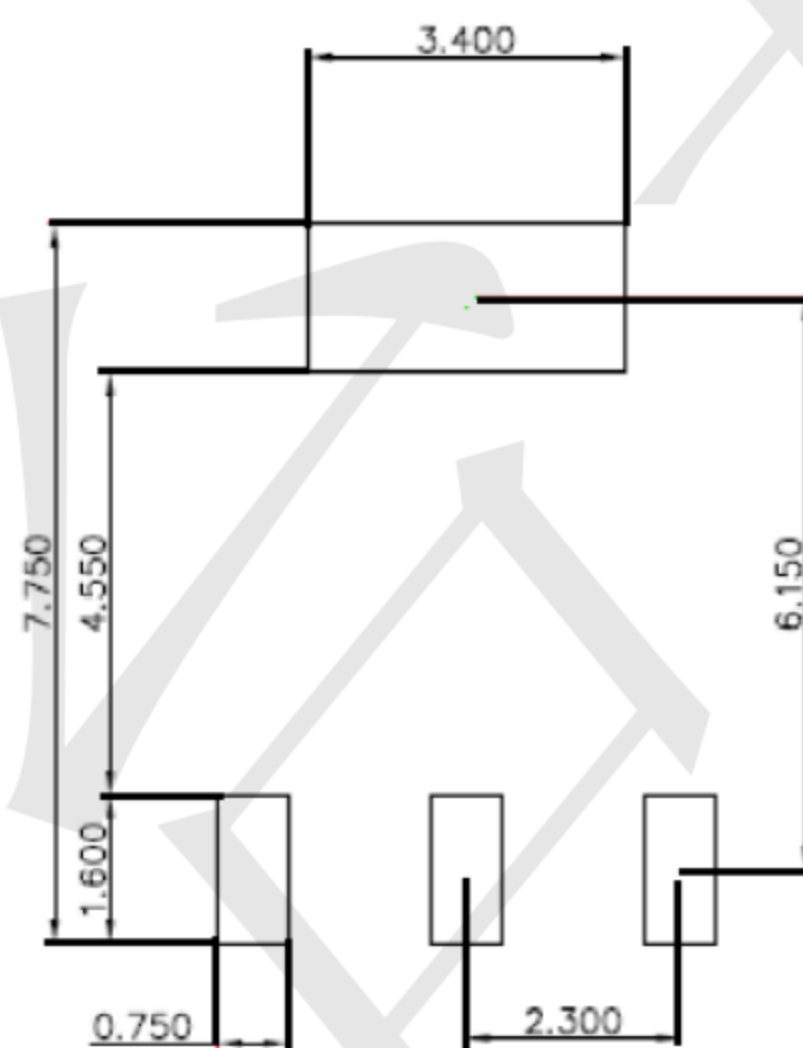




Outline Drawing - SOT223



SOT-223		
Dim	Min	Max
A	6.10	6.50
B	3.30	3.70
C	1.50	1.70
D	0.66	0.82
E	0.90	1.15
F	2.90	3.10
G	2.20	2.40
H	0.02	0.10
I	1.52	1.80
J	0.20	0.40
K	6.70	7.30



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