

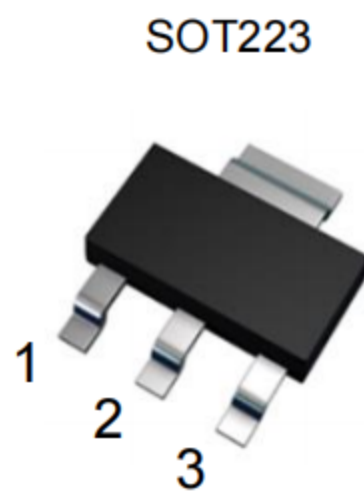


### Features

- High Collector Current
- Low Collector-emitter Saturation Voltage

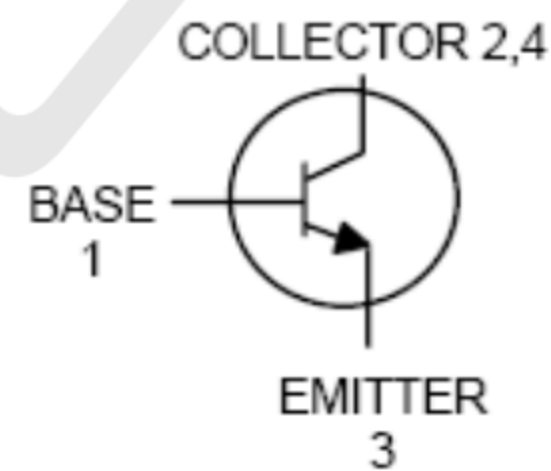
### Mechanical Data

- 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)

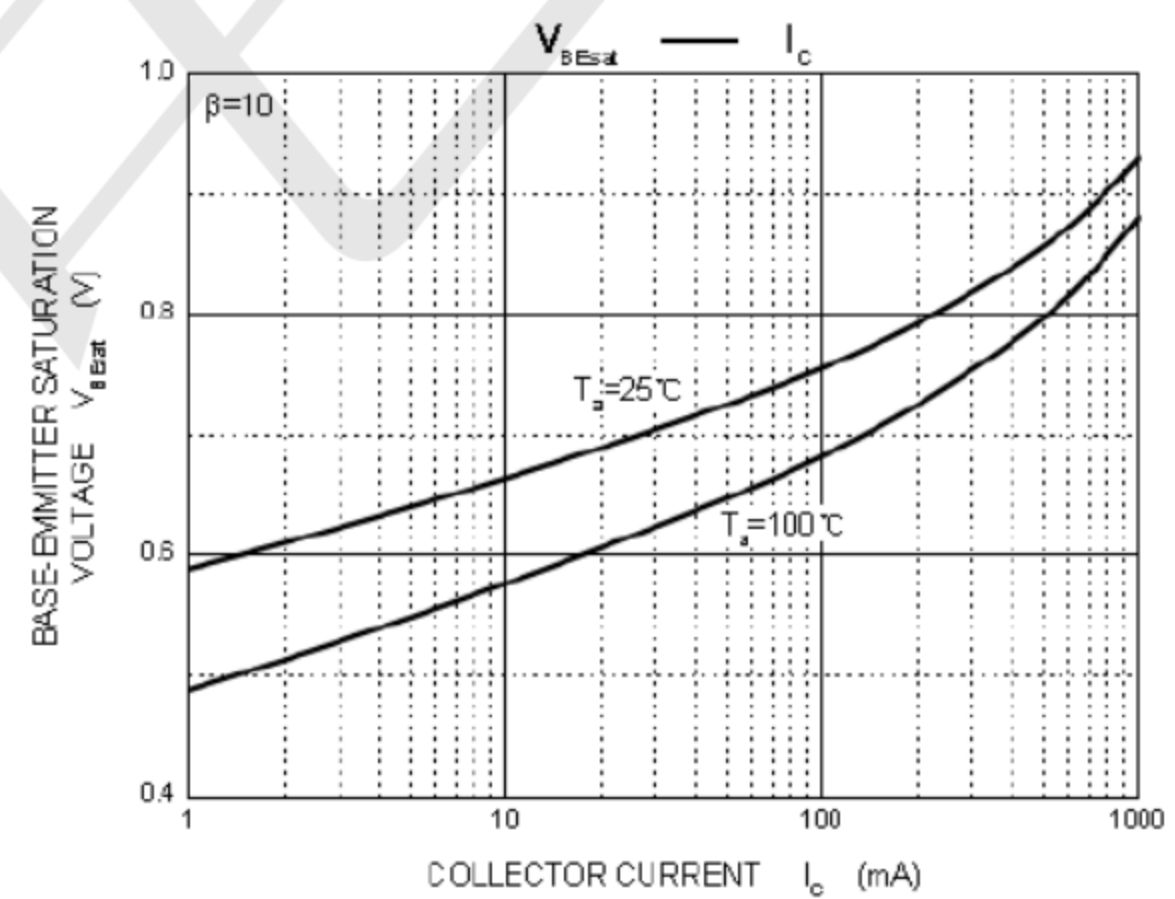
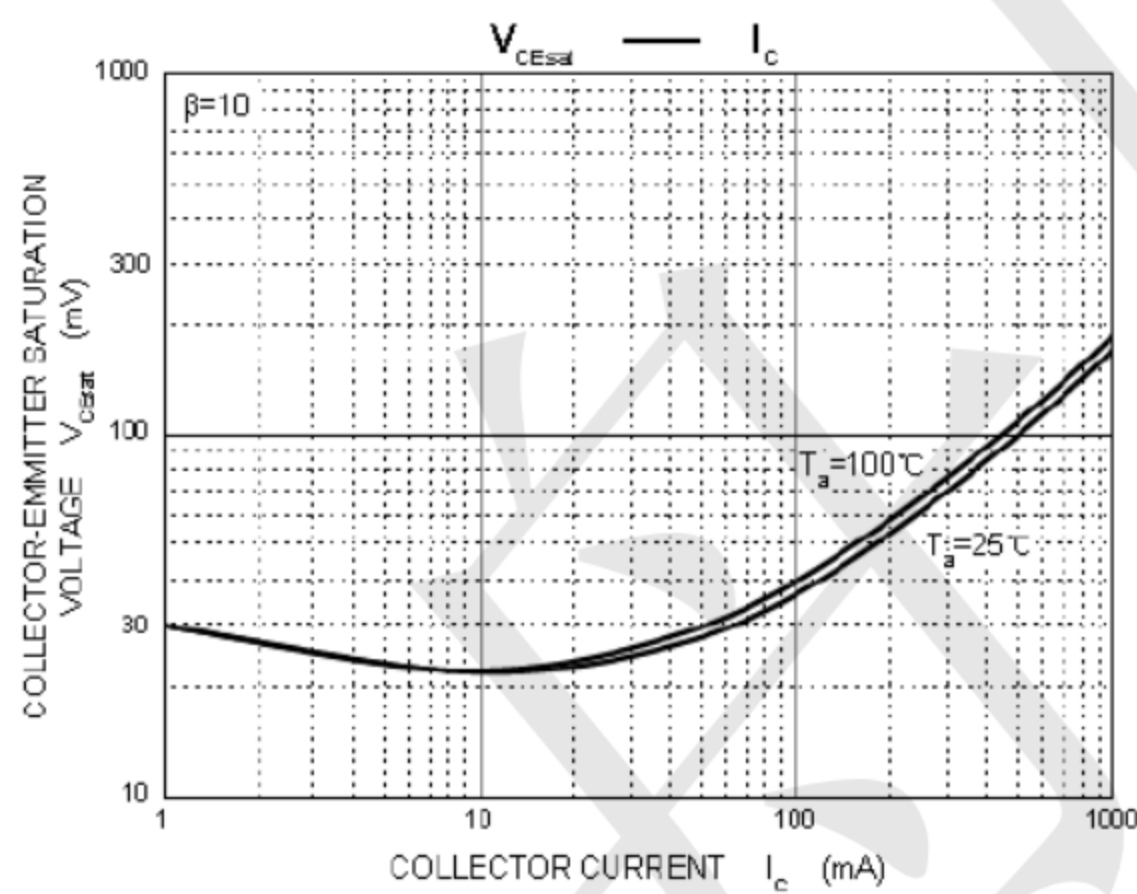
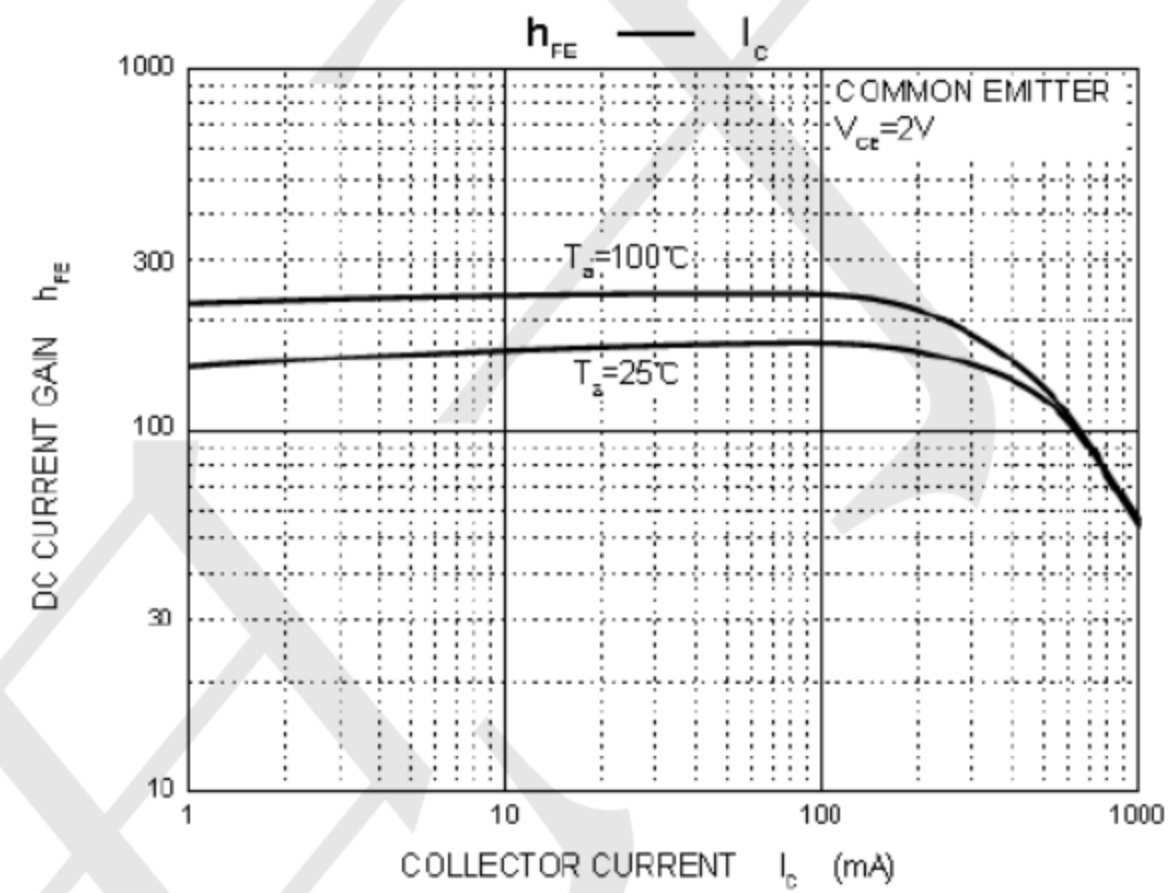
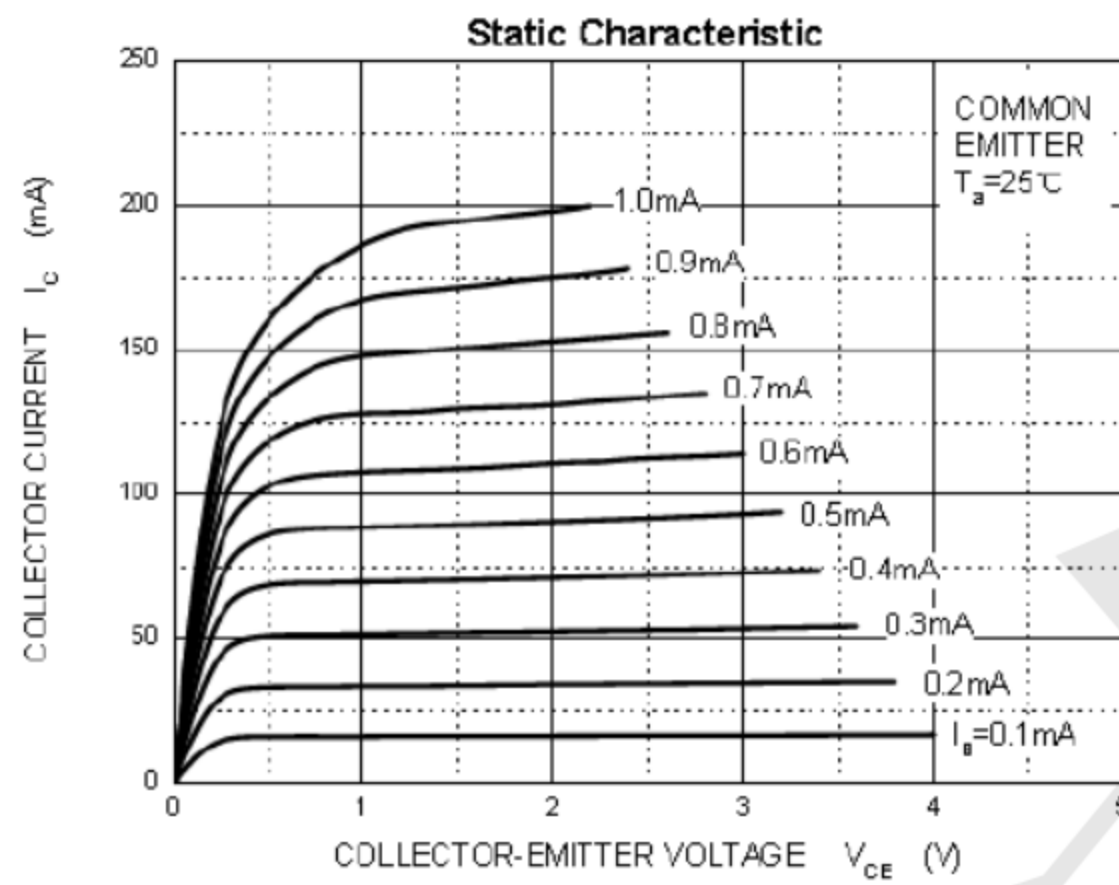
Symbol	Parameter	Value	Units
V <sub>CB0</sub>	Collector-Base Voltage	60	V
V <sub>CEO</sub>	Collector-Emitter Voltage	60	V
V <sub>EB0</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current - Continuous	1	A
I <sub>CM</sub>	Peak Collector Current	1.5	A
I <sub>B</sub>	Base Current	0.1	A
I <sub>BM</sub>	Peak Base Current	0.2	A

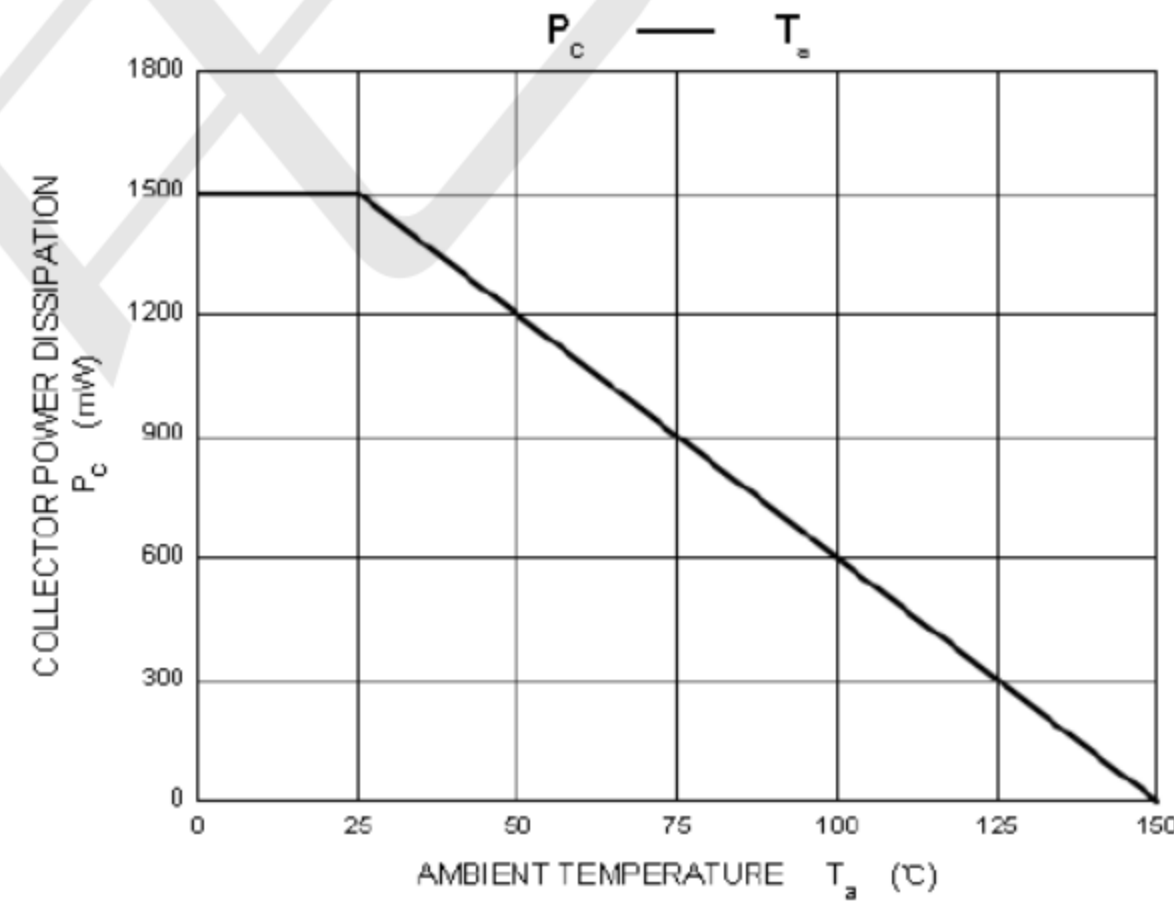
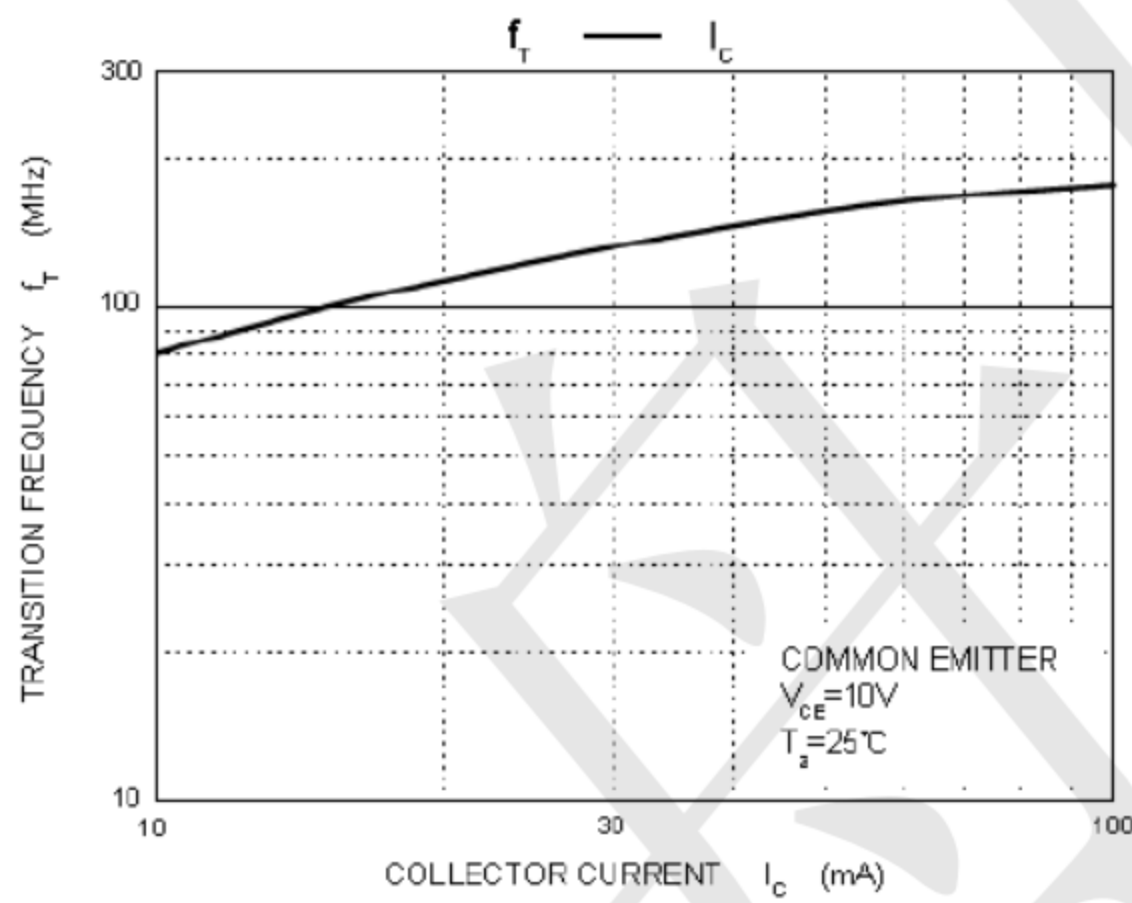
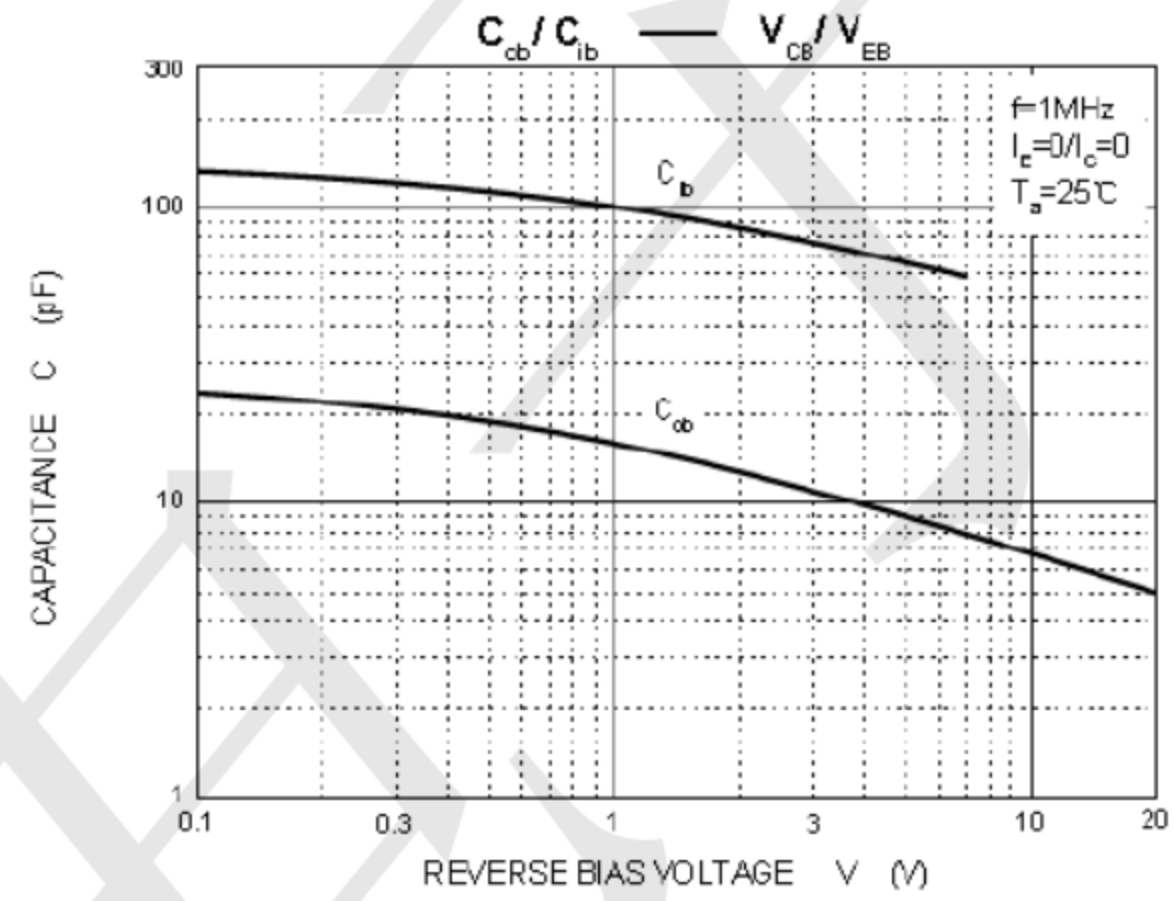
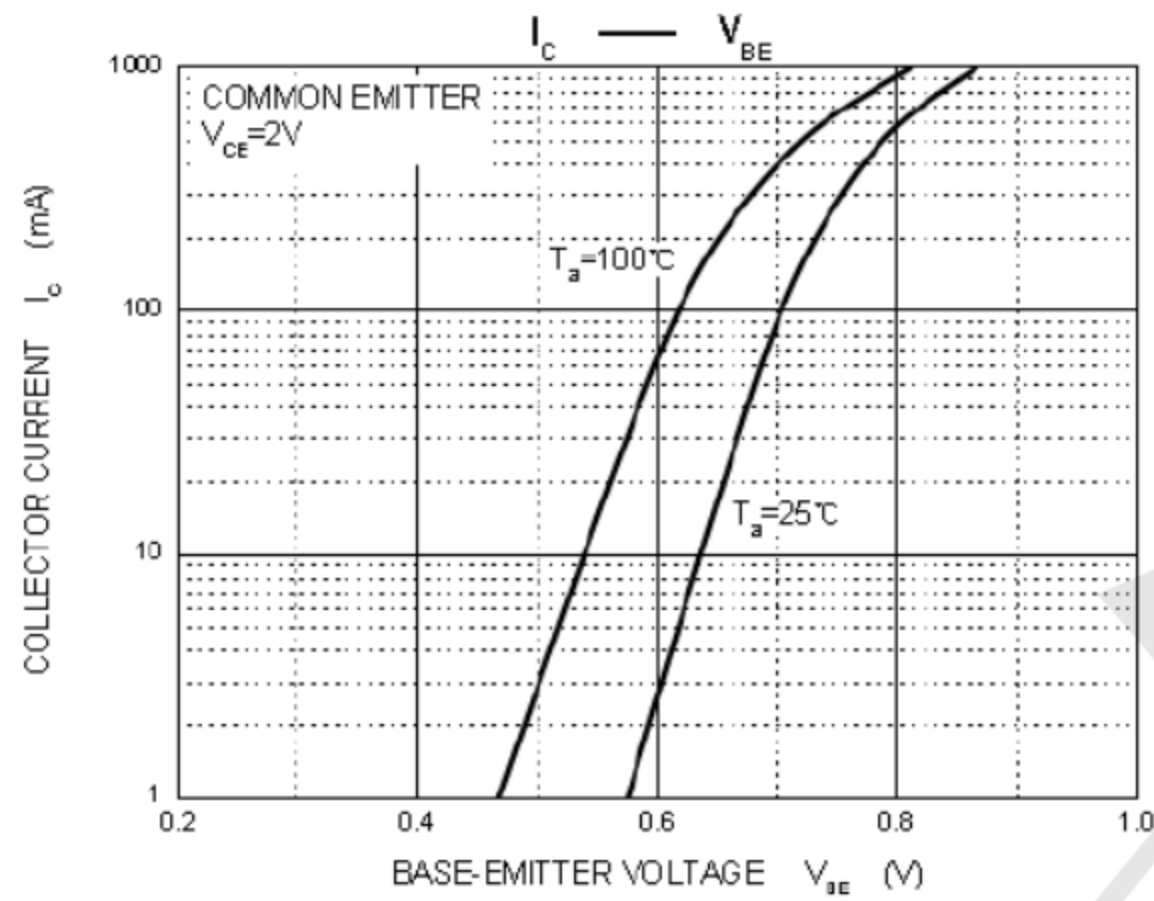
**Thermal Characteristic**

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)

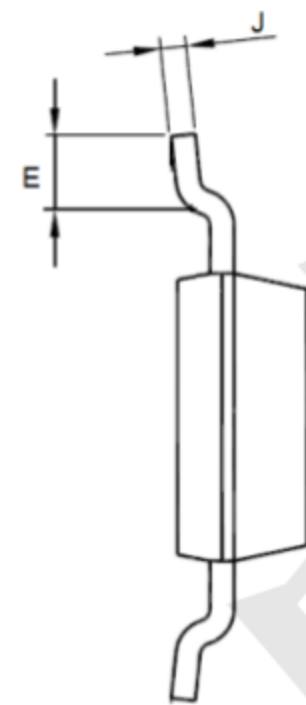
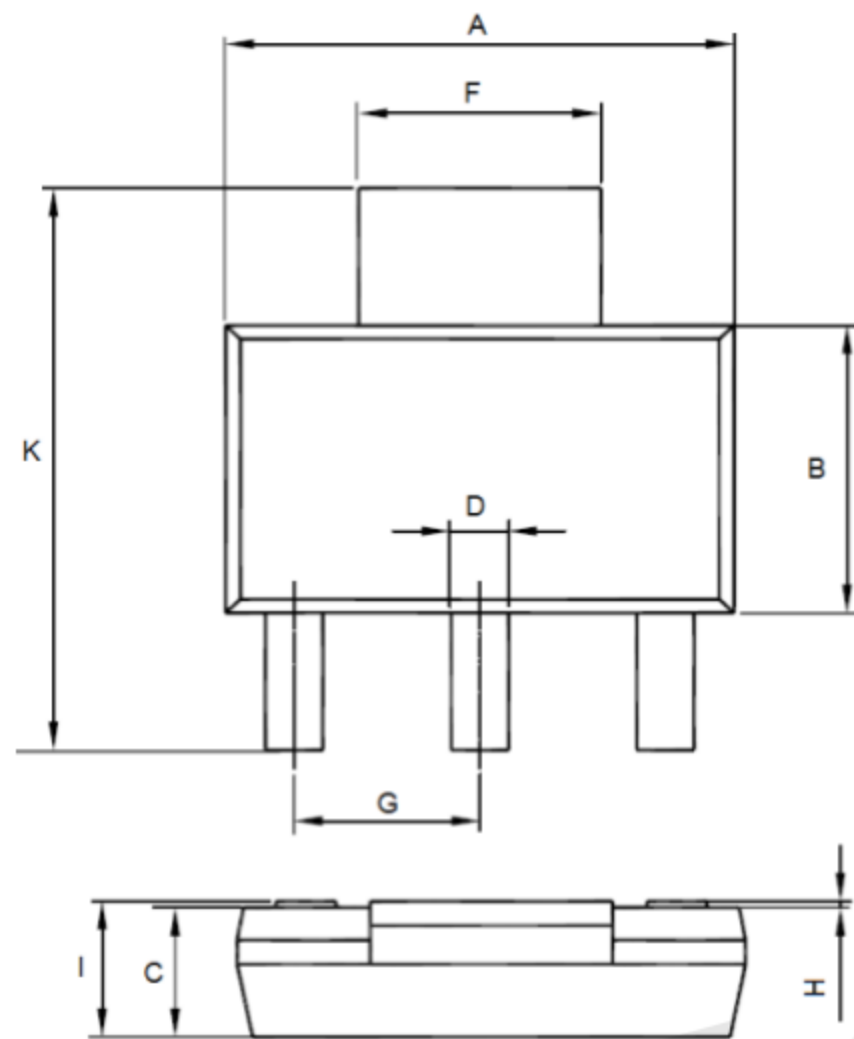
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector cut-off current	$I_{CBO}$	$V_{CB}=30V, I_E=0$	-	-	100	nA
Emitter cut-off current	$I_{EBO}$	$I_C=0, V_{EB}=5V$	-	-	100	nA
DC Current Gain	$h_{FE}$	$V_{CE}=2V, I_C=150\text{ mA}$	100	-	250	-
Collector-Emitter Saturation Voltage <sup>(Note 2)</sup>	$V_{CE(sat)}$	$I_C=0.5A, I_B=50\text{mA}$	-	-	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



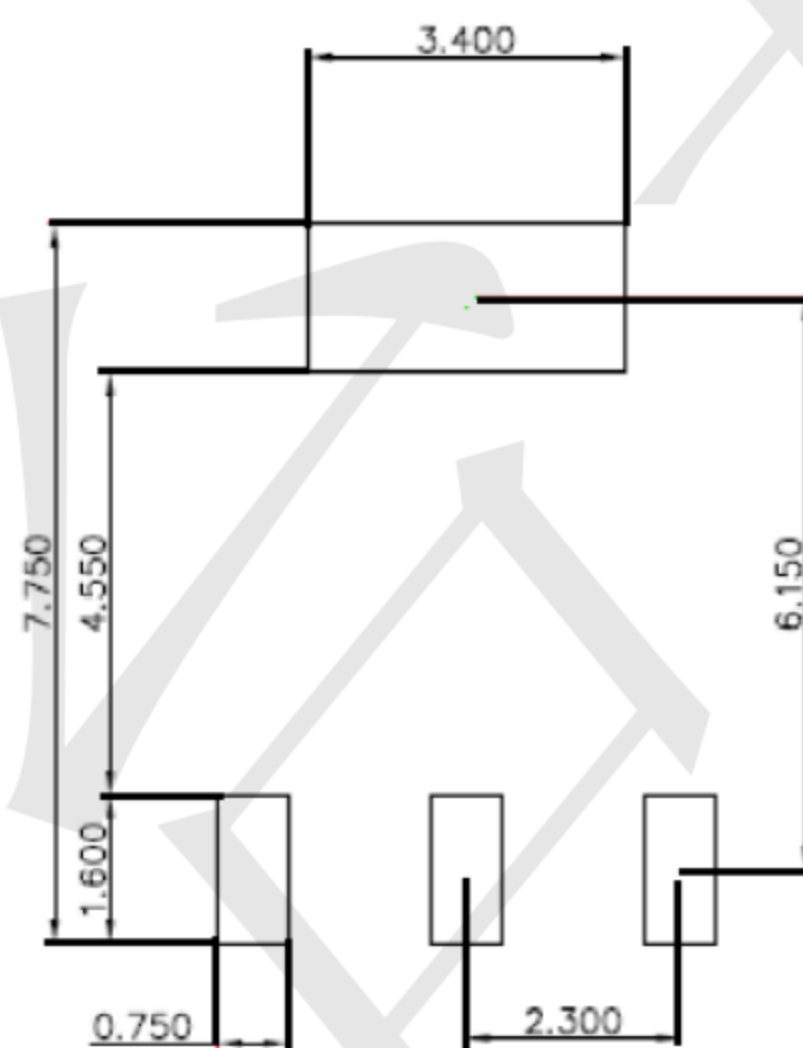




### Outline Drawing - SOT223



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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