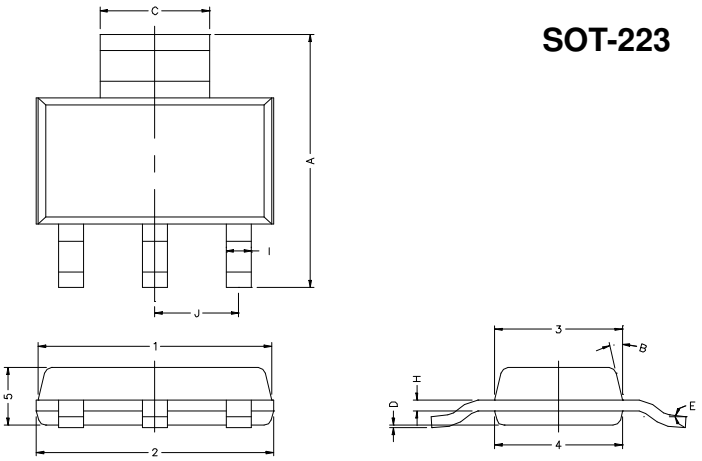
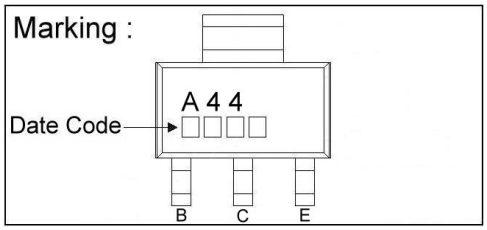
Data Sheet

NPN EPITAXIAL TRANSISTOR



SOT-223



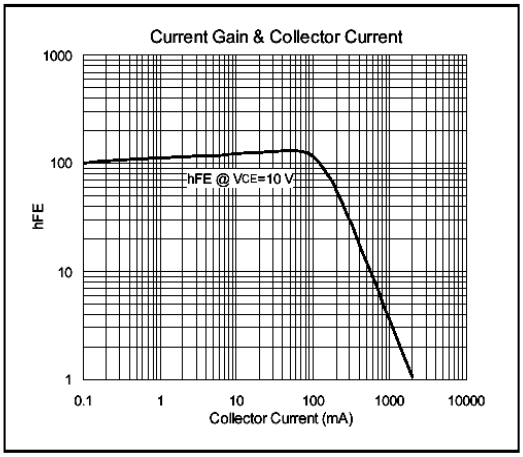
REF.	Min.	Max.	REF.	Min.	Max.
A	6.70	7.30	B	13°TYP.	
C	2.90	3.10	J	2.30 REF.	
D	0.02	0.10	1	6.30	6.70
E	0°	10°	2	6.30	6.70
I	0.60	0.80	3	3.30	3.70
H	0.25	0.35	4	3.30	3.70
			5	1.40	1.80

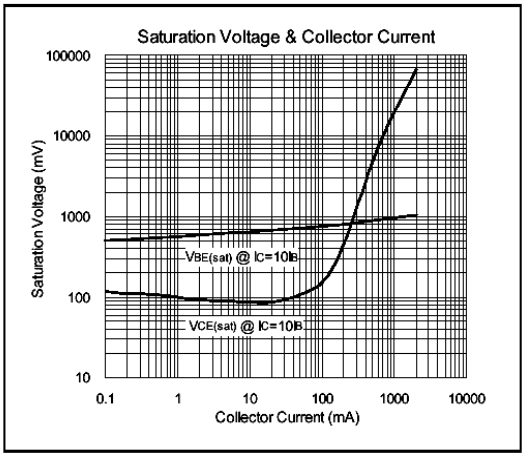
Absolute Maximum Ratings at Ta = 25℃

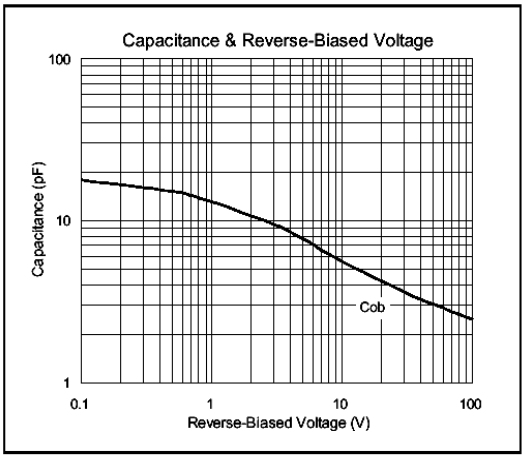
Parameter	Symbol	Ratings	Unit
Junction Temperature	Tj	+150	℃
Storage Temperature	Tstg	-55 ~ +150	℃
Collector to Base Voltage	VCBO	500	V
Collector to Emitter Voltage	VCEO	400	V
Emitter to Base Voltage	VEBO	6.0	V
Collector Current	IC	300	mA
Total Power Dissipation	PD	1.2	W

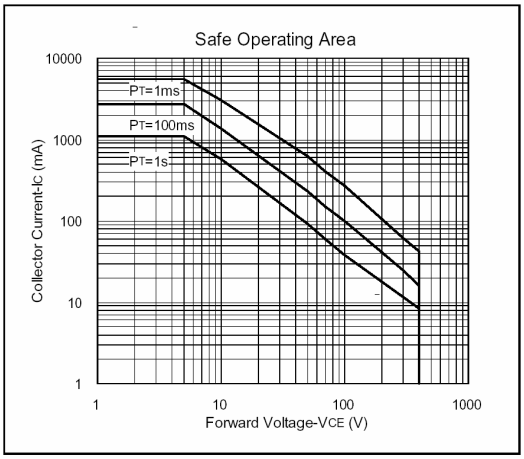
Characteristics at Ta = 25℃

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	500	-	-	V	IC=100uA
BVCEO	400	-	-	V	IC=1mA
BVEBO	6	-	-	V	IE=10uA
ICBO	-	-	100	nA	VCB=400V
ICES	-	-	500	nA	VCB=400V
IEBO	-	-	100	nA	VEB=4V
VCE(sat)1	-	-	375	mV	IC=20mA, IB=2mA
VCE(sat)2	-	-	750	mV	IC=50mA, IB=5 mA
VBE(sat)	-	-	750	mV	IC=1 0mA, IB=1mA
hFE1	40	-	-		VCE=10V, IC=1mA
hFE2	50	-	300		VCE=10V, IC=10mA
hFE3	45	-	-		VCE=10V, IC=50mA
hFE4	40	-	-		VCE=10V, IC=100mA
Cob	-	4	6	pF	VCE=20V, f=1MHz


Current Gain & Collector Current
hFE
1000
100
10
1
hFE @ VCE=10 V
0.1
1
10
100
1000
10000
Collector Current (mA)


Saturation Voltage & Collector Current
Saturation Voltage (mV)
100000
10000
1000
100
10
VBE(sat) @ IC=10IB
VCE(sat) @ IC=10IB
0.1
1
10
100
1000
10000
Collector Current (mA)


Capacitance & Reverse-Biased Voltage
Capacitance (pF)
100
10
1
Cob
0.1
1
10
100
Reverse-Biased Voltage (V)


Safe Operating Area
Collector Current-IC (mA)
10000
1000
100
10
1
PT=1ms
PT=100ms
PT=1s
1
10
100
1000
Forward Voltage-VCE (V)