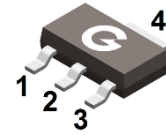
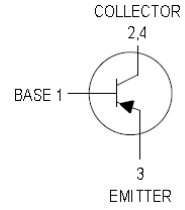


Features

- Epitaxial planar die construction
- Low current
- High voltage
- RoHS compliant with Halogen-free

HF



SOT-223

Mechanical Data

- Case: SOT-223
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
PZTA94	SOT-223	4000pcs / Tape & Reel	A94

Maximum Ratings (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Collector-Base Breakdown Voltage	V_{CBO}	-400	V
Collector-Emitter Breakdown Voltage	V_{CEO}	-400	V
Emitter-Base Breakdown Voltage	V_{EBO}	-6	V
Collector Current (Continuous)	I_C	-0.3	A

Thermal Characteristics

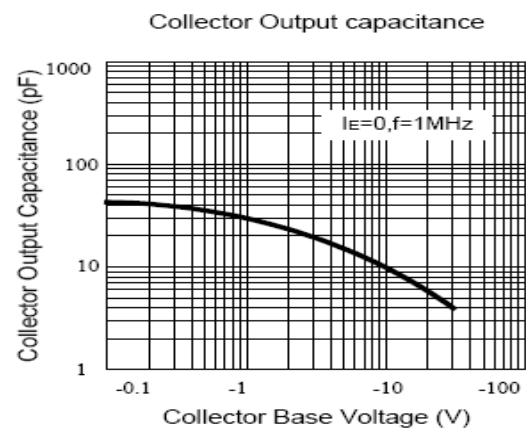
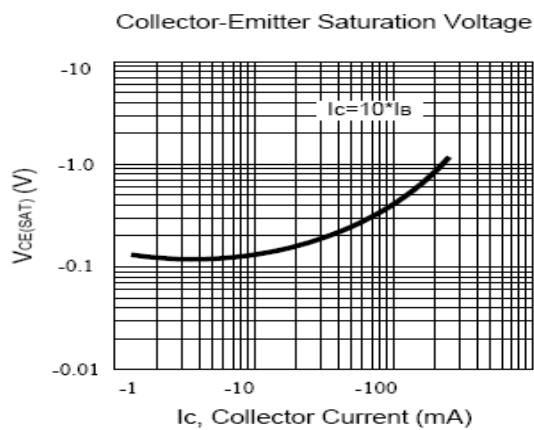
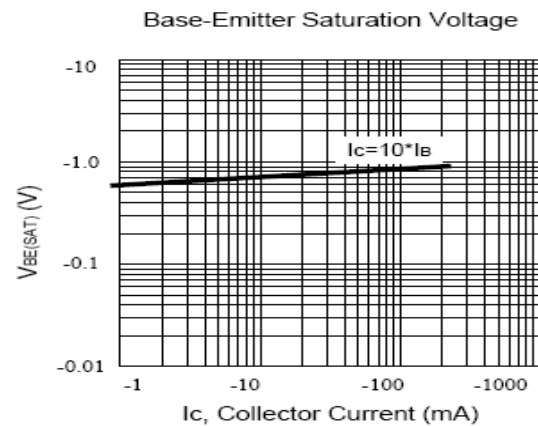
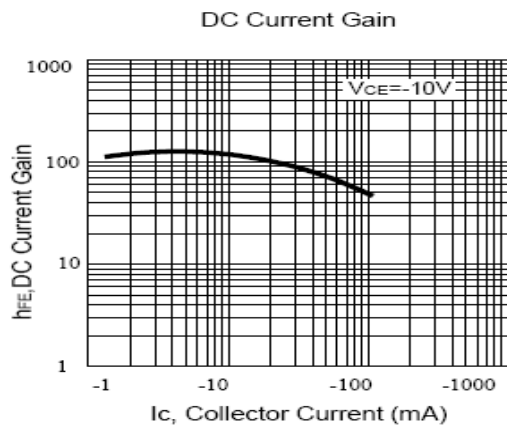
Parameter	Symbol	Value	Unit
Power Dissipation ^{*1}	P_D	1.35	W
Thermal Resistance (Junction-to-Ambient) ^{*1}	$R_{\theta JA}$	92	$^\circ\text{C/W}$
Junction Temperature	T_J	-55 ~ +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^\circ\text{C}$

Note1: Device mounted on a printed-circuit board, single-sided copper, tinplated, mounting pad for collector 1 cm²

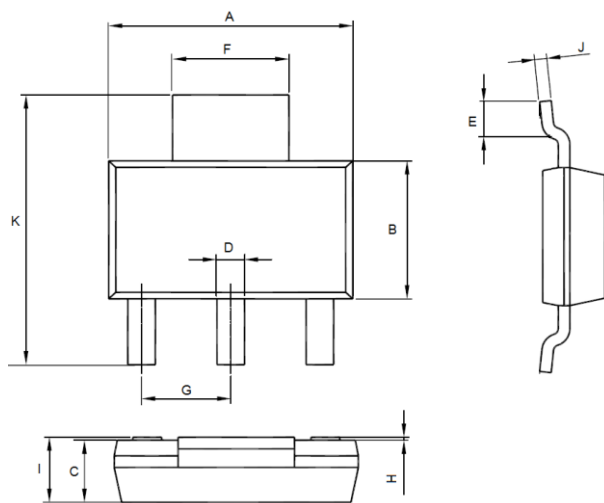
Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -100\mu\text{A}, I_E = 0$	-400	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, I_B = 0$	-400	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -100\mu\text{A}, I_C = 0$	-6	-	-	V
Collector Cut-off Current	I_{CBO}	$V_{CB} = -400\text{V}, I_E = 0$	-	-	-100	nA
Base Cut-off Current	I_{EBO}	$V_{EB} = -4\text{V}, I_C = 0$	-	-	-100	nA
DC Current Gain	h_{FE}	$V_{CE} = -10\text{V}, I_C = -1\text{mA}$	60	-	-	-
		$V_{CE} = -10\text{V}, I_C = -10\text{mA}$	70	-	300	-
		$V_{CE} = -10\text{V}, I_C = -50\text{mA}$	70	-	-	-
		$V_{CE} = -10\text{V}, I_C = -100\text{mA}$	40	-	-	-
Collector-emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -10\text{mA}, I_B = -1\text{mA}$	-	-	-0.2	V
		$I_C = -50\text{mA}, I_B = -5\text{mA}$	-	-	-0.5	V
Base-emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -10\text{mA}, I_B = -1\text{mA}$	-	-	-0.75	V
Output Capacitance	C_{OBO}	$V_{CB} = -20\text{V}, I_E = 0, f = 1\text{MHz}$	-	-	7	pF
Transition Frequency	f_T	$I_C = -10\text{mA}, V_{CE} = -20\text{V}$ $f = 30\text{MHz}$	50	-	-	MHZ

Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)



Package Outline Dimensions (Unit: mm)



SOT-223		
Dimension	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

Mounting Pad Layout (Unit: mm)

SOT-223

