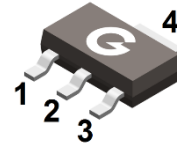
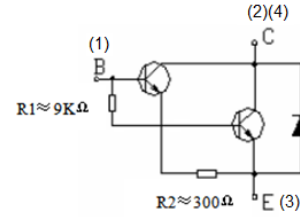


Features

- Epitaxial planar die construction
- Ideal for low power amplification and switching
- Complementary PNP type available TPZT127
- RoHS compliant with Halogen-free
- Qualified to AEC-Q101 standards for high reliability

HF



SOT-223

Mechanical Data

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

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
TPZT112	SOT-223	4000 pcs / Tape & Reel	PZT112

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Collector-Base Breakdown Voltage	V _{CBO}	100	V
Collector-Emitter Breakdown Voltage	V _{CEO}	100	V
Emitter-Base Breakdown Voltage	V _{EBO}	5	V
Collector Current (Continuous)	I _C	2	A
Collector Current (Peak)	I _{CM}	4	A
Base Current	I _B	0.05	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation (T _A = 25°C)	P _D	2	W
Thermal Resistance (Junction-to-Ambient)	R _{θJA}	62.5	°C/W
Junction Temperature	T _J	-55 ~ +150	°C
Storage Temperature Range	T _{STG}	-55 ~ +150	°C

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	V_{CBO}	$I_C = 1\text{mA}, I_E = 0$	100	-	-	V
Collector-Emitter Sustaining Voltage	$V_{CEO(SUS)}$	$I_C = 30\text{mA}, I_B = 0$	100	-	-	V
Emitter-Base Breakdown Voltage	V_{EBO}	$I_E = 1\text{mA}, I_C = 0$	5	-	-	V
Collector Cut-off Current	I_{CBO}	$V_{CB} = 100\text{V}, I_E = 0$	-	-	1	mA
Collector Cut-off Current	I_{CEO}	$V_{CE} = 50\text{V}, I_B = 0$	-	-	2	mA
Base Cut-off Current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$	-	-	2	mA
DC Current Gain	h_{FE}	$V_{CE} = 4\text{V}, I_C = 1\text{A}$	1000	-	-	-
		$V_{CE} = 4\text{V}, I_C = 2\text{A}$	500	-	-	-
Collector-emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 2\text{A}, I_B = 8\text{mA}$	-	-	2.5	V
Base-emitter On Voltage	$V_{BE(on)}$	$V_{CE} = 4\text{V}, I_C = 2\text{A}$	-	-	2.8	V
Output Capacitance	C_{OBO}	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$	-	-	100	pF

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

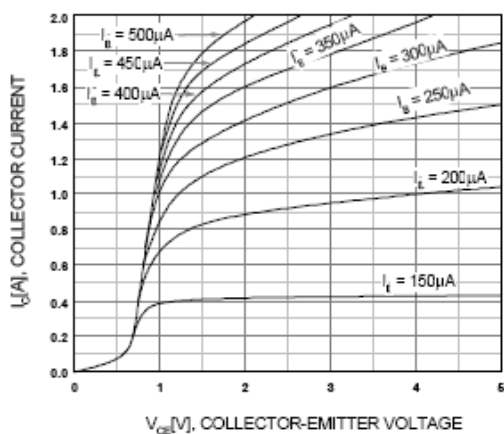


Figure 1. Static Characteristic

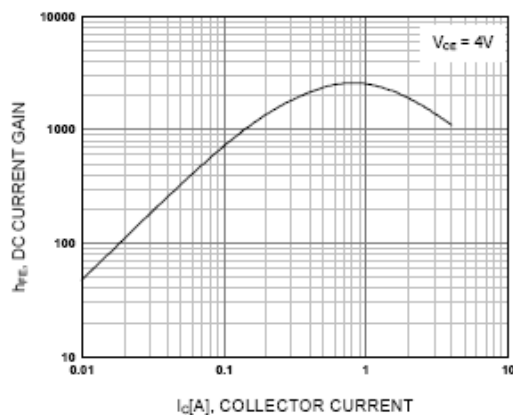


Figure 2. DC current Gain

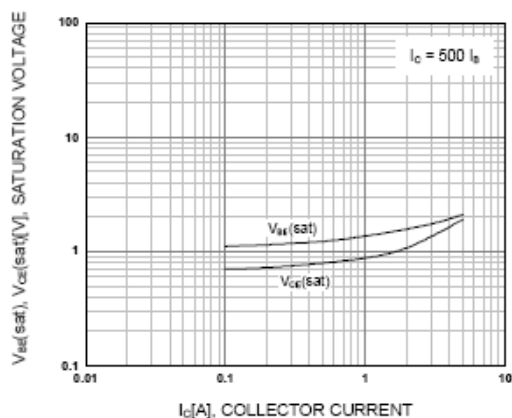


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

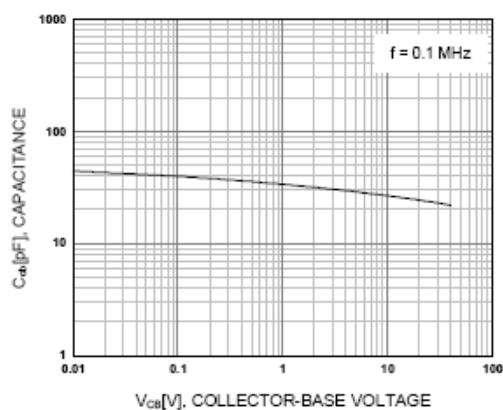
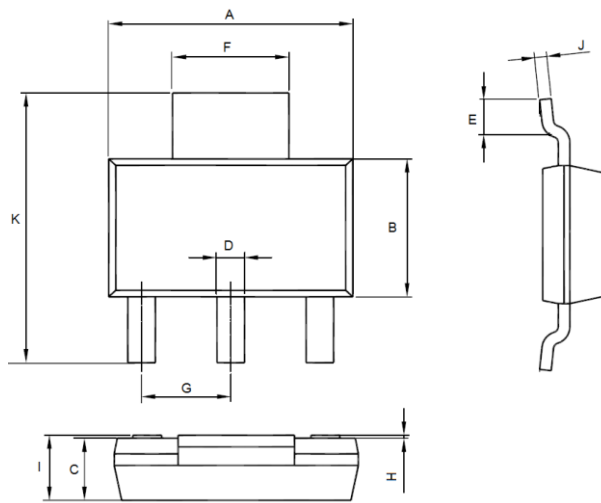


Figure 4. Collector Output Capacitance

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)

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