PNP Silicon Epitaxial Planar Transistor

PZT5401

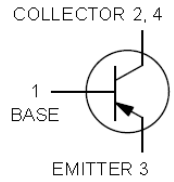
Features

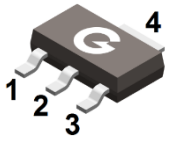
- Epitaxial planar die construction
- Complementary NPN type available(PZT5551)

HF

Mechanic al Data

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





SOT-223

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
PZT5401	SOT-223	4000 pcs / Tape & Reel	2L

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

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-160	V
Collector-Emitter Breakdown Voltage	V_{CEO}	-150	V
Emitter-Base Breakdown Voltage	V_{EBO}	-5	V
Collector Current (Continuous)	I_C	-0.6	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation (Collector) *1	P_D	1.15	W
Thermal Resistance (Junction-to-Ambient)	$R_{\theta JA}$	108	°C/W
Junction Temperature	T_J	-55 ~ +150	°C
Storage Temperature Range	T_{STG}	-55 ~ +150	°C

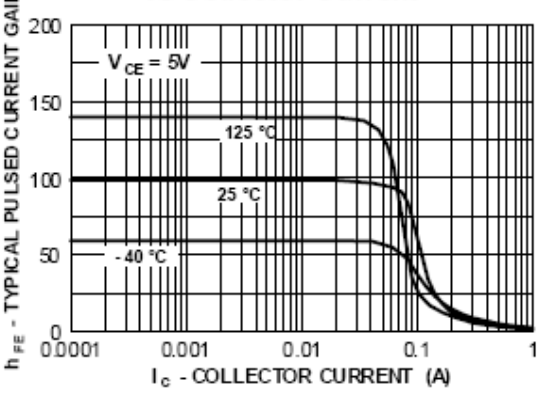
Note1: Device mounted on a printed-circuit board, single-sided copper, tinplated, mounting pad for collector 1 cm^2

Electrical Characteristics (@ T_A = 25°C unless otherwise specified)

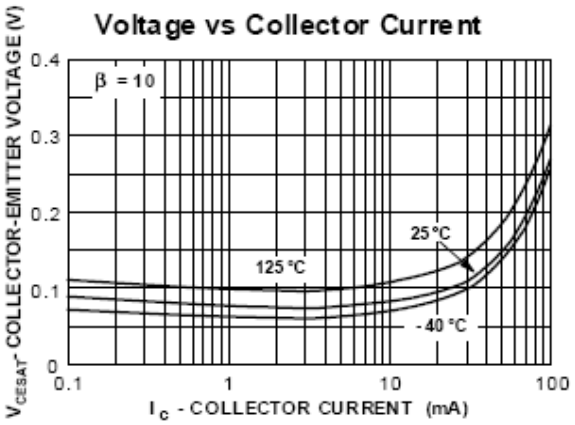
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = -100μA, I_E = 0	-160	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = -1mA, I_B = 0	-150	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E = -10μA, I_C = 0	-5	-	-	V
Collector Cut-off Current	I_{CBO}	V_{CB} = -120V, I_E = 0	-	-	-50	nA
Emitter Cut-off Current	I_{EBO}	V_{EB} = -3V, I_C = 0	-	-	-50	nA
DC Current Gain	h_{FE}	V_{CE} = -5V, I_C = -1mA	50	-	-	-
		V_{CE} = -5V, I_C = -10mA	100	-	300	-
		V_{CE} = -5V, I_C = -50mA	50	-	-	-
Collector-emitter Saturation Voltage	$V_{CE(sat)}$	I_C = -10mA, I_B = -1mA	-	-	-0.2	V
		I_C = -50mA, I_B = -5mA	-	-	-0.5	V
Base-emitter Saturation Voltage	$V_{BE(sat)}$	I_C = -10mA, I_B = -1mA	-	-	-1	V
		I_C = -50mA, I_B = -5mA	-	-	-1	V
Collector-base Output Capacitance	C_{cbo}	V_{CB} = -10V, f = 1MHz, I_E = 0	-	-	6	pF
Current-Gain— Bandwidth Product	f_T	I_C = -10mA, V_{CE} = -10V f = 100MHz	100	-	300	MHz

Ratings and Characteristics Curves (@ T_A = 25°C unless otherwise specified)

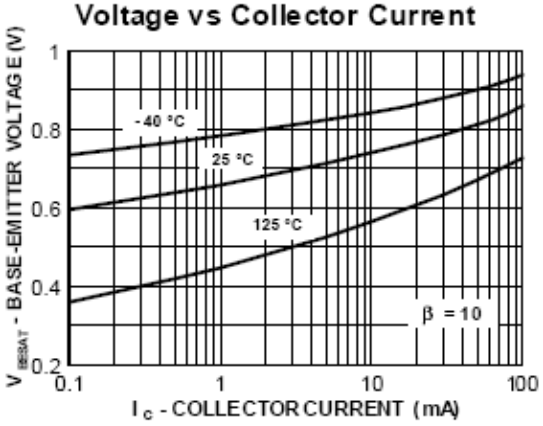
Typical Pulsed Current Gain vs Collector Current



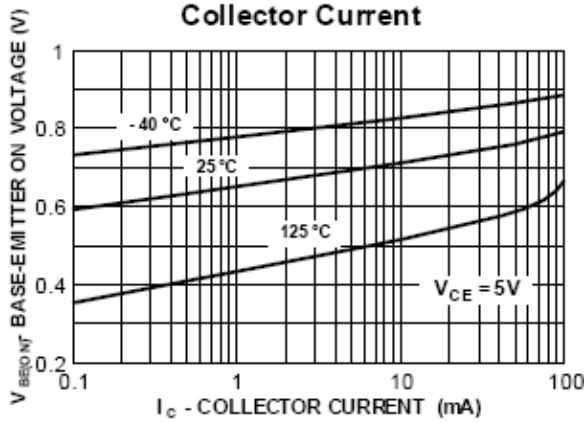
Collector-Emitter Saturation Voltage vs Collector Current



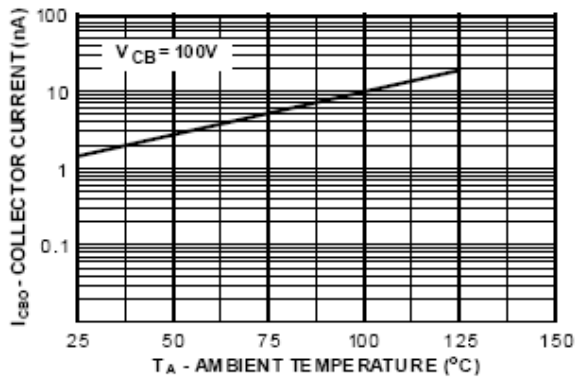
Base-Emitter Saturation Voltage vs Collector Current



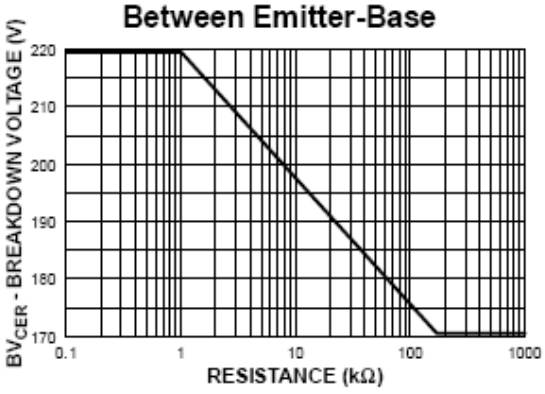
Base-Emitter ON Voltage vs Collector Current

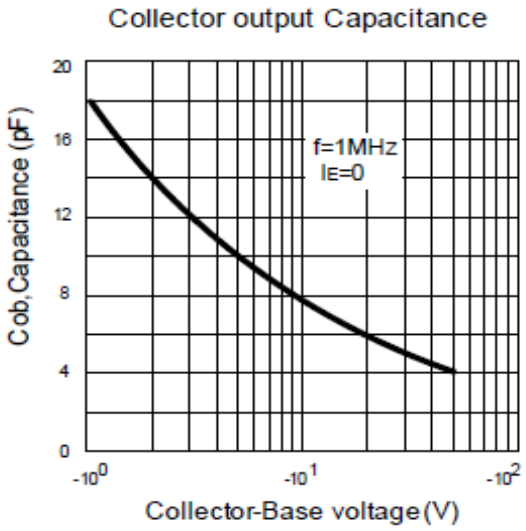


Collector-Cutoff Current vs Ambient Temperature

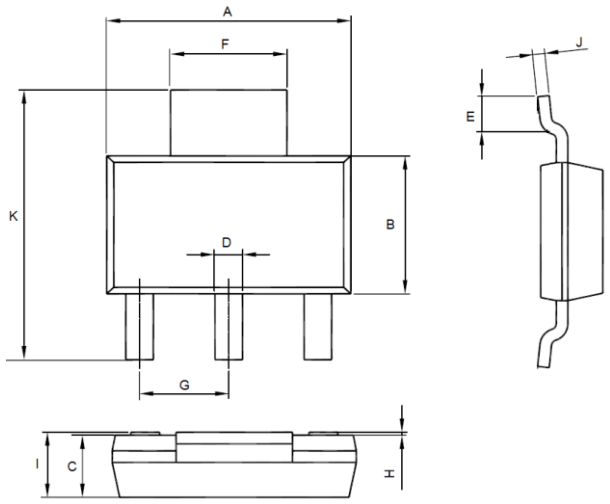


Collector-Emitter Breakdown Voltage with Resistance Between Emitter-Base




Collector output Capacitance
Cob,Capacitance (pF)
20
16
12
8
4
0
f=1MHz
IE=0
-10^0
-10^1
-10^2
Collector-Base voltage (V)

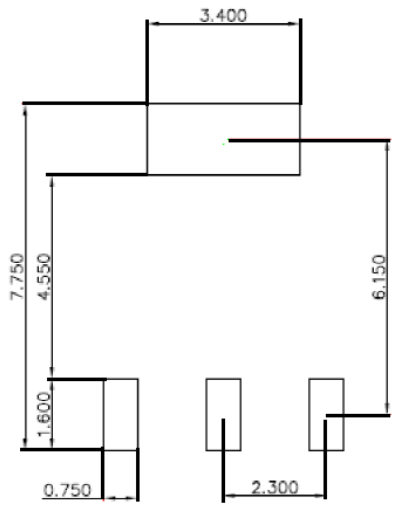
Package Outline Dimensions (Unit: mm)



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



IMPORTANT NOTICE

Changzhou Galaxy Century Microelectronics (GME) reserves the right to make changes without further notice to any product information (copyrighted) herein to make corrections, modifications, improvements, or other changes. GME does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others.