PNP Silicon Epitaxial Planar Transistor

FZT955

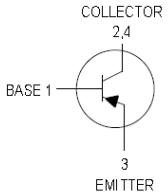
Features

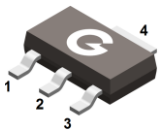
- Low Collector-Emitter saturation voltage $V_{CE(sat)}$
- High collector current capability

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
FZT955	SOT-223	4000 pcs / Tape & Reel	FZT955

Maximum Ratings (@ T_A = 25℃ unless otherwise specified)

Parameter	Symbol	Value	Unit
Collector-Base Breakdown Voltage	V_{CBO}	-180	V
Collector-Emitter Breakdown Voltage	V_{CEO}	-140	V
Emitter-Base Breakdown Voltage	V_{EBO}	-6	V
Collector Current (Continuous)	I_C	-4	A
Collector Current (Peak)	I_{CM}	-10	A
Base Current	I_B	-3	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	1	W
Thermal Resistance Junction-to-Air	$R_{\theta JA}$	68	°C/W
Thermal Resistance Junction-to-Case	$R_{\theta JC}$	3	°C/W
Junction Temperature Range	T_J	-55 ~ +150	°C
Storage Temperature Range	T_{STG}	-55 ~ +150	°C

Electrical Characteristics (@ T_A = 25℃ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = -100μA, I_E = 0	-180	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = -10mA, I_B = 0	-140	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E = -100μA, I_C = 0	-6	-	-	V
Collector Cut-off Current	I_{CBO}	V_{CB} = -150V, I_E = 0	-	-	-50	nA
		V_{CB} = -150V, I_E = 0, T_A = 100°C	-	-	-1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = -6V, I_C = 0	-	-	-10	nA
DC Current Gain	h_{FE}	V_{CE} = -5V, I_C = -10mA	100	-	-	-
		V_{CE} = -5V, I_C = -1A	110	-	300	-
		V_{CE} = -5V, I_C = -3A	75	-	-	-
		V_{CE} = -5V, I_C = -10A	-	10	-	-
Collector-emitter Saturation Voltage	$V_{CE(sat)}$	I_C = -100mA, I_B = -5mA	-	-	-0.06	V
		I_C = -500mA, I_B = -50mA	-	-	-0.12	V
		I_C = -1A, I_B = -100mA	-	-	-0.15	V
		I_C = -3A, I_B = -300mA	-	-	-0.37	V
Base-emitter Saturation Voltage	$V_{BE(sat)}$	I_C = -3A, I_B = -300mA	-	-	-1.11	V
Base-emitter Voltage	$V_{BE(on)}$	I_C = -3A, V_{CE} = -5V	-	-	-0.95	V
Transition Frequency	f_T	V_{CE} = -10V, I_C = -100mA f = 50MHz	-	110	-	MHz
Output Capacitance	C_{ob}	V_{CB} = -20V, f = 1MHz	-	40	-	pF
Turn-on Time	t_{on}	I_C = -1A, I_{B1} = -100mA I_{B2} = 100mA, V_{CC} = -50V	-	68	-	ns
Turn-off Time	t_{off}		-	1030	-	ns

Ratings and Characteristic Curves (@ T_A = 25℃ unless otherwise specified)

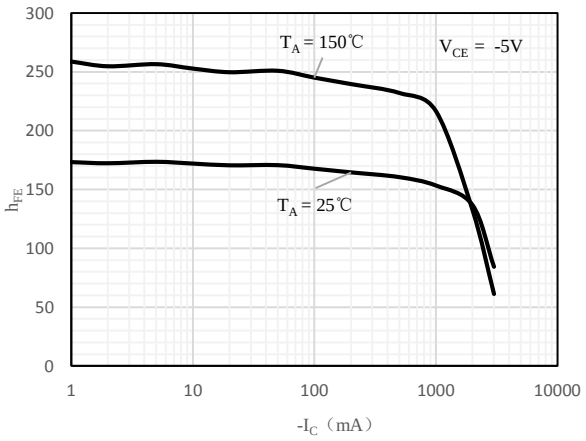


Fig 1 h_{FE} vs. I_C

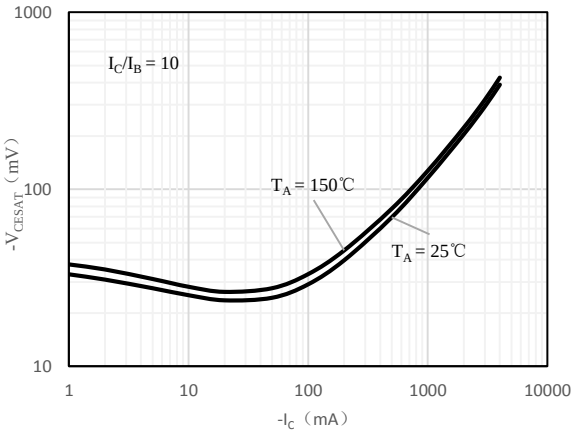


Fig 2 $V_{CE(sat)}$ vs. I_C

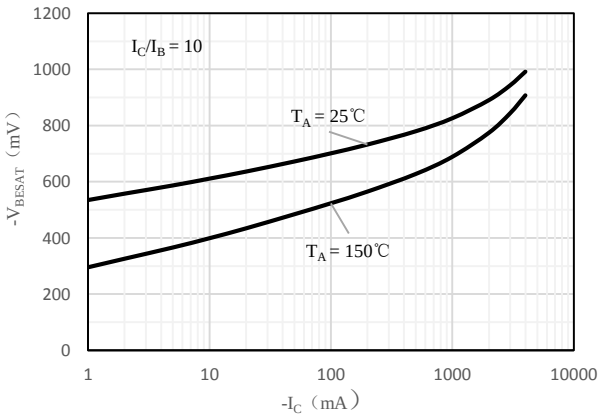


Fig 3 $V_{BE(sat)}$ vs. I_C

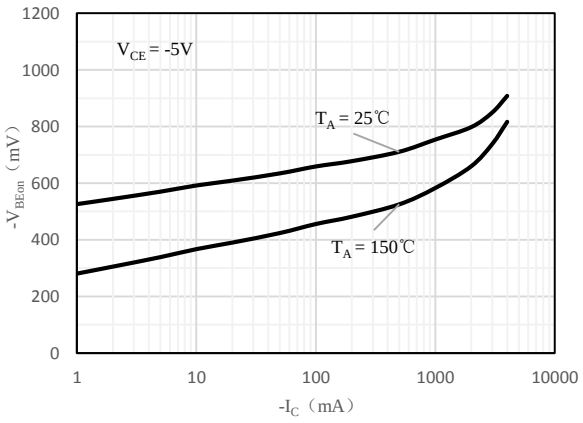
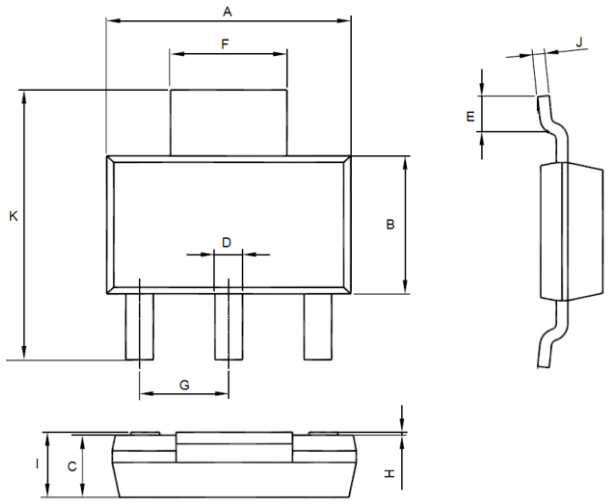


Fig 4 $V_{BE(ON)}$ vs. I_C

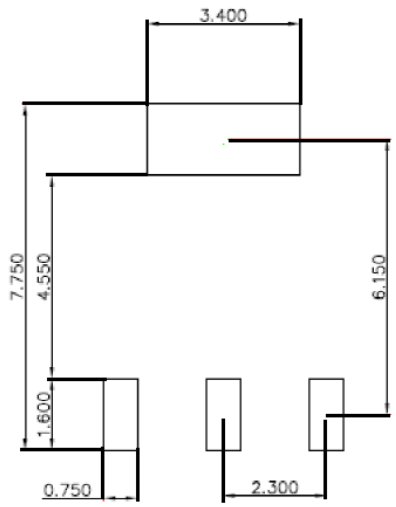
Package Outline Dimensions (Unit: mm)



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



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