

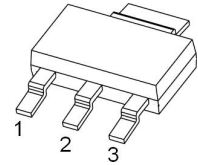
FZTCST955S223 TRANSISTOR (PNP)

FEATURES

- High Voltage
- Low saturation voltages

SOT-223

1. BASE
2. COLLECTOR
3. EMITTER



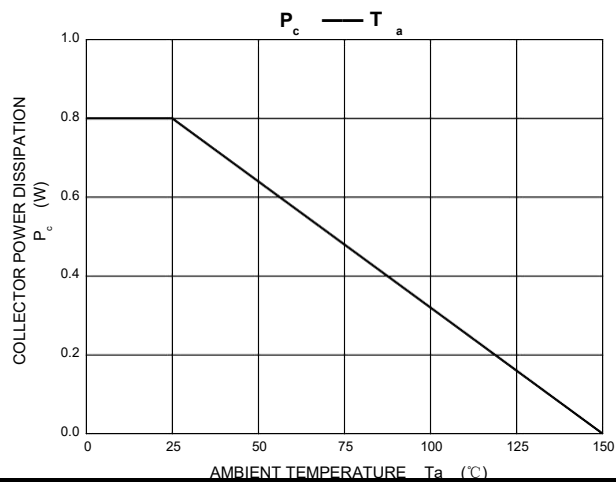
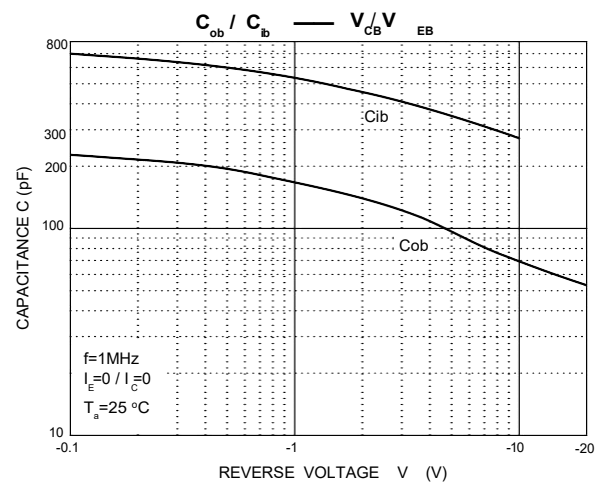
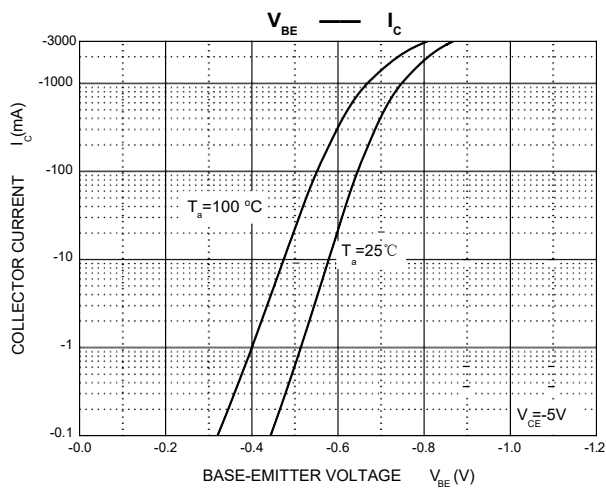
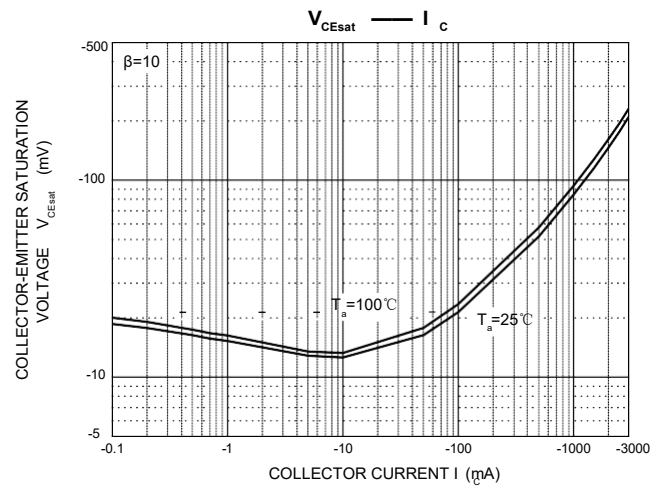
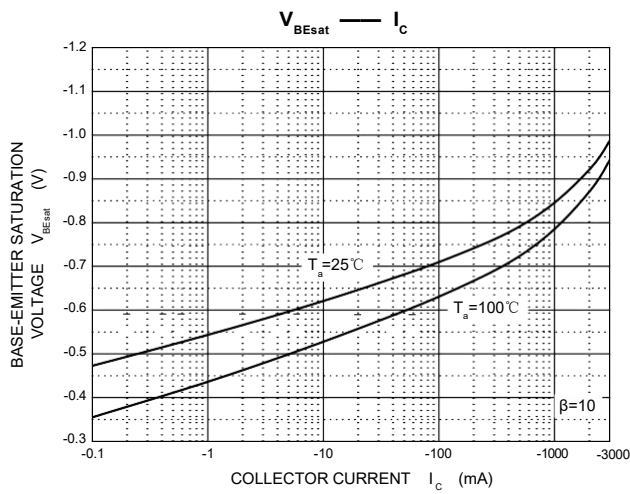
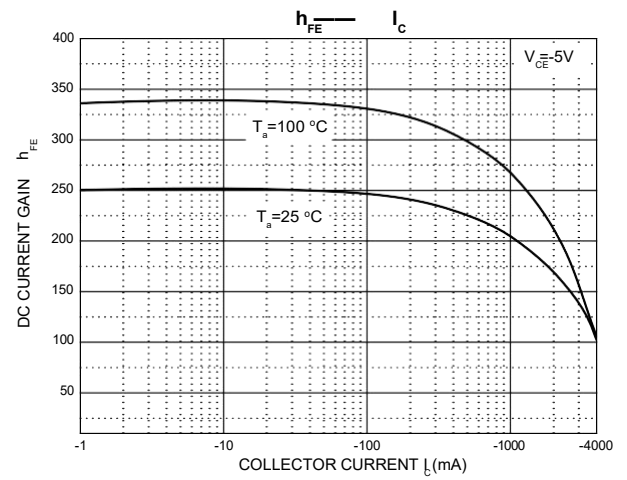
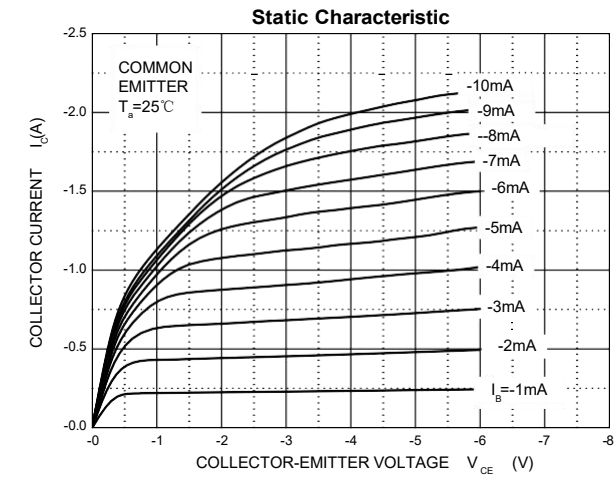
MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-180	V
V_{CEO}	Collector-Emitter Voltage	-140	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current	-4	A
P_C	Collector Power Dissipation	0.8	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	156	$^{\circ}\text{C/W}$
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

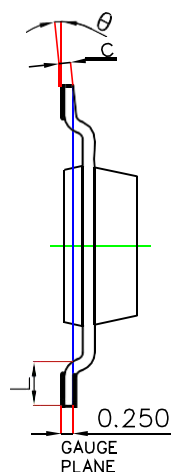
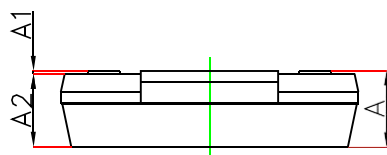
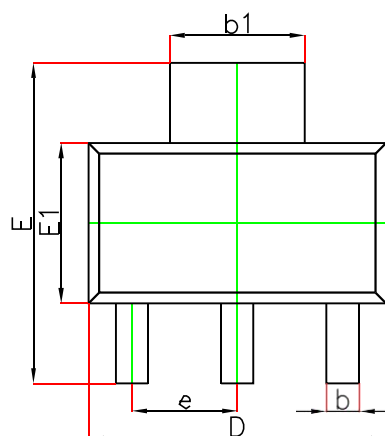
ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-0.1\text{mA}, I_E=0$	-180			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10\text{mA}, I_B=0$	-140			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-0.1\text{mA}, I_C=0$	-6			V
Collector cut-off current	I_{CBO}	$V_{CB}=-150\text{V}, I_E=0$			-50	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=-6\text{V}, I_C=0$			-10	nA
DC current gain	$h_{FE(1)}$	$V_{CE}=-5\text{V}, I_C=-10\text{mA}$	100			
	$h_{FE(2)}$	$V_{CE}=-5\text{V}, I_C=-1\text{A}$	100		300	
	$h_{FE(3)}$	$V_{CE}=-5\text{V}, I_C=-3\text{A}$	75			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-100\text{mA}, I_B=-5\text{mA}$			-60	mV
		$I_C=-500\text{mA}, I_B=-50\text{mA}$			-120	mV
		$I_C=-1\text{A}, I_B=-100\text{mA}$			-150	mV
		$I_C=-3\text{A}, I_B=-300\text{mA}$			-370	mV
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-3\text{A}, I_B=-300\text{mA}$			-1.11	V
Base-emitter voltage	V_{BE}	$V_{CE}=-5\text{V}, I_C=-3\text{A}$			-0.95	V
Transition frequency	f_T	$V_{CE}=-10\text{V}, I_C=-100\text{mA}, f=50\text{MHz}$		70		MHz
Collector output capacitance	C_{ob}	$V_{CB}=-20\text{V}, I_E=0, f=1\text{MHz}$		40		pF
Switching Times	t_{on}	$V_{CC}=-50\text{V}, I_C=-1\text{A}, I_{B1}=I_{B2}=-100\text{mA}$		68		ns
	t_{off}			1030		ns

Typical Characteristics

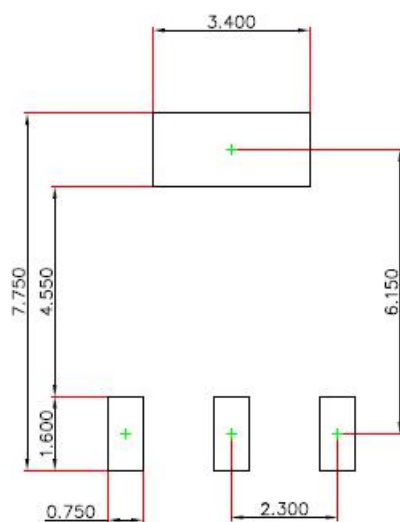


SOT-223 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	—	1.800	—	0.071
A1	0.020	0.100	0.001	0.004
A2	1.500	1.700	0.059	0.067
b	0.660	0.840	0.026	0.033
b_1	2.900	3.100	0.114	0.122
c	0.230	0.350	0.009	0.014
D	6.300	6.700	0.248	0.264
E	6.700	7.300	0.264	0.287
E1	3.300	3.700	0.130	0.146
e	2.300(BSC)		0.091(BSC)	
L	0.750	—	0.030	—
θ	0°	10°	0°	10°

SOT-223 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.050 mm.
3. The pad layout is for reference purposes only.

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