PZT4403

Plastic-Encapsulate Transistors

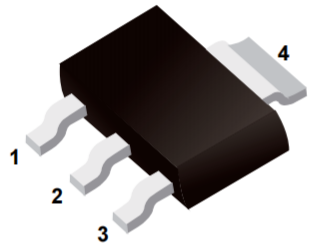
MechanicalData

Case: SOT-223

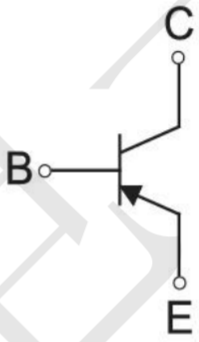
Epoxy meets UL-94 V-0 flammability rating and halogen free

Moisture Sensitivity Level 3

High temperature soldering guaranteed 260℃/10seconds at terminals



SOT-223



Maximum Ratings & Thermal Characteristics

(Ratings at 25℃ ambient temperature unless otherwise specified.)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-40	V
Collector-Emitter Voltage	V_{CEO}	-40	V
Emitter-Base Voltage	V_{EBO}	-6	V
Collector Current -Continuous	I_C	-0.6	A
Collector Power Dissipation	P_D	1	W
Junction Temperature	T_j	150	℃
Storage Temperature	T_{stg}	-55~+150	℃
Thermal resistance From junction to ambient	$R_{\theta JA}$	125	℃/W

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ElectricalCharacteristics

(Ratings at 25℃ ambient temperature unless otherwise specified).

Parameter	Conditions	Symbol	Min.	Max.	Unit
Collector-base breakdown voltage	I_C=-0.1mA, I_E=0A	$V_{(BR)CBO}$	-40		V
Collector-emitter breakdown voltage	I_C=-1mA, I_B=0A	$V_{(BR)CEO}$	-40		V
Emitter-base breakdown voltage	I_E=-0.1mA, I_C=0A	$V_{(BR)EBO}$	-6		V
Collector cut-off current	V_{CB}=-40V, I_E=0A	I_{CBO}		-50	nA
Emitter Cut-off current	V_{EB}=-5V, I_C=0A	I_{EBO}		-50	nA
DC current gain	V_{CE}=-1V, I_C=-0.1mA	$h_{FE(1)}$	30		
	V_{CE}=-1V, I_C=-1mA	$h_{FE(2)}$	60		
	V_{CE}=-1V, I_C=-10mA	$h_{FE(3)}$	100		
	V_{CE}=-2V, I_C=-150mA	$h_{FE(4)}$	100	300	
	V_{CE}=-2V, I_C=-500mA	$h_{FE(5)}$	20		
Collector-emitter saturation voltage	I_C=-150mA, I_B=-15mA	$V_{CE(sat)}$		-0.40	V
	I_C=-500mA, I_B=-50mA			-0.75	V
Base -emitter saturation voltage	I_C=-150mA, I_B=-15mA	$V_{BE(sat)}$		-0.95	V
	I_C=-500mA, I_B=-50mA			-1.30	V
Transition frequency	V_{CE}=-10V, I_C=-20mA; f=100MHz	f_T	200		MHz
Collector capacitance	V_{CB}=-5V, I_E=0A,f=1MHz	C_C		8.5	pF
Emitter capacitance	V_{BE}=-0.5V, I_C=0A,f=1MHz	Ce		35	pF

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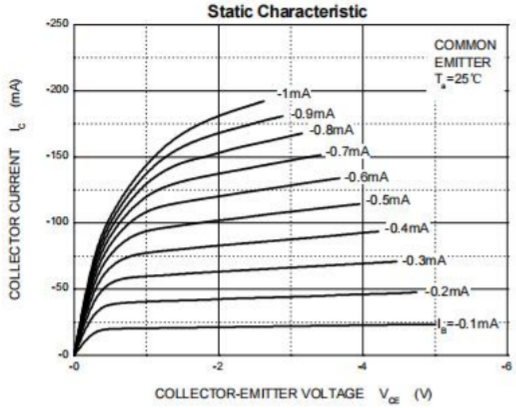
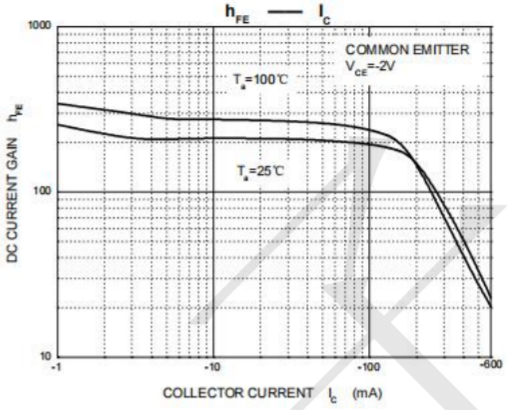
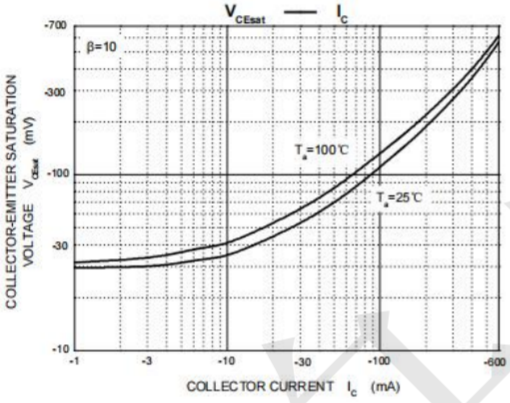
Static Characteristic



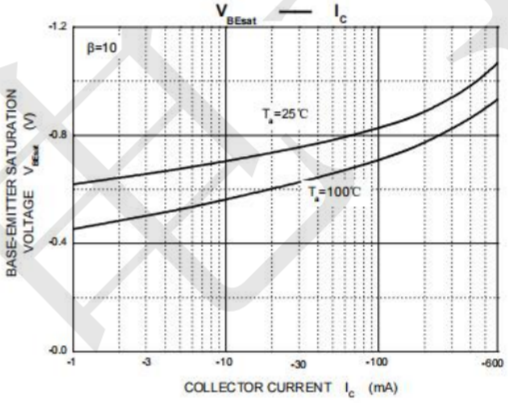
h_{FE} — I_C



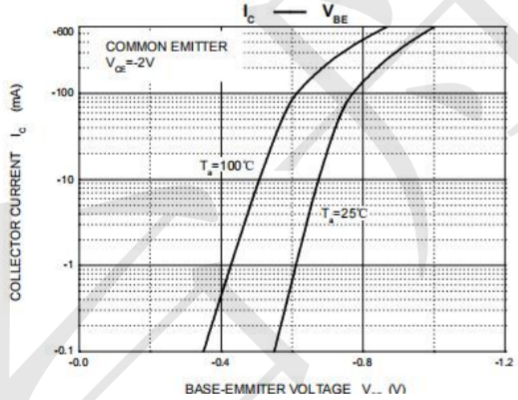
V_{CEsat} — I_C



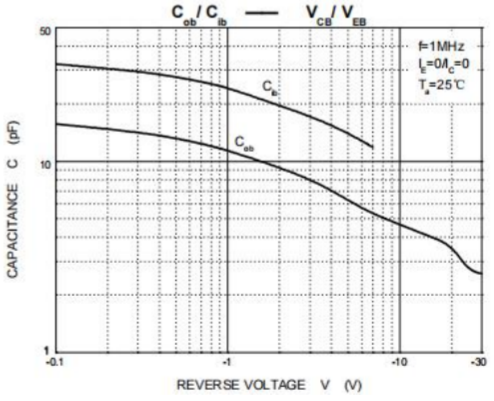
V_{BEsat} — I_C



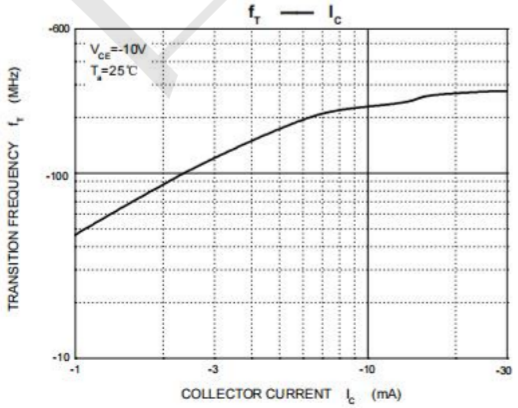
I_C — V_{BE}



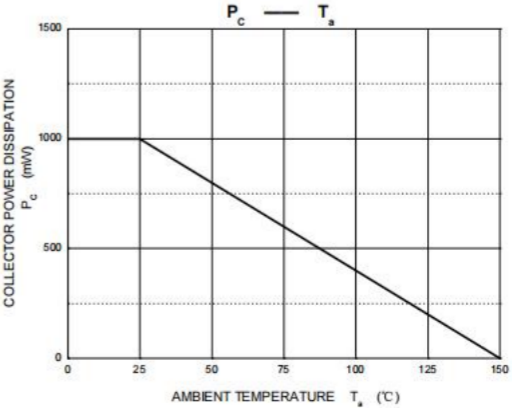
C_{ob} / C_{ib} — V_{CB} / V_{EB}



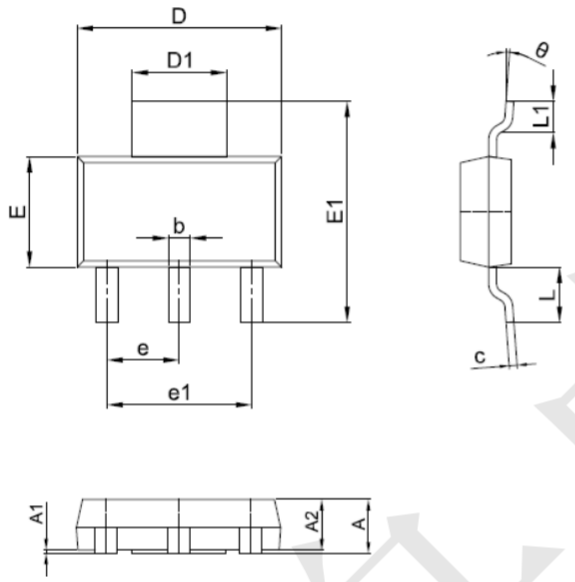
f_T — I_C



P_C — T_a



Package Dimensions SOT-223



Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	1.50	1.80	0.059	0.071
A1	0.00	0.10	0.000	0.004
A2	1.50	1.70	0.059	0.067
b	0.65	0.75	0.026	0.030
c	0.20	0.30	0.008	0.012
D	6.40	6.60	0.252	0.260
D1	2.90	3.10	0.114	0.122
E	3.30	3.70	0.130	0.146
E1	6.85	7.15	0.270	0.281
e	2.20	2.40	0.087	0.094
e1	4.40	4.80	0.173	0.189
L	1.65	1.85	0.065	0.073
L1	0.90	1.15	0.035	0.045

The recommended mounting pad size