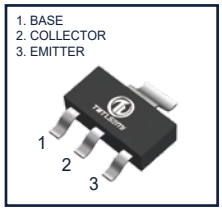
TL-PZT3904

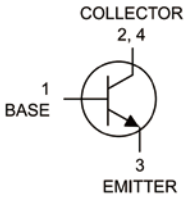
SOT-223 Plastic-Encapsulate Transistors (NPN)

Features

- Low Voltage and Low Current
- Complementary to PZT3906
- General Purpose Amplifier and Switch Application



SOT-223



Equivalent Circuit

Absolute Maximum Ratings(T_A=25℃)

Symbol	Parameter	Value	Uniat
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	0.2	A
P_C	Collector Power Dissipation	1	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	125	℃/W
T_J,T_{stg}	Operation Junction And Storage Temperature Range	-55~+150	℃

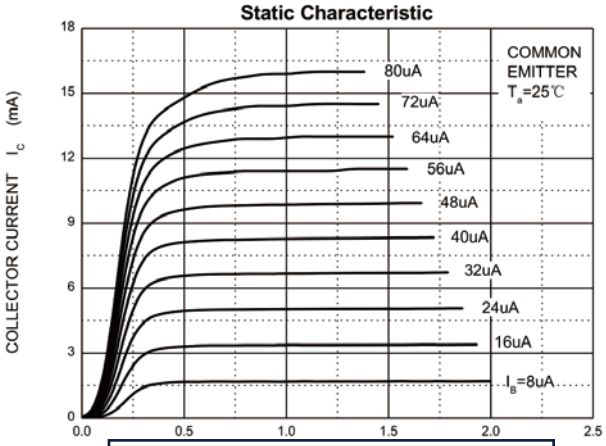
Electrical Characteristics (T_A=25℃ unless otherwise specified)

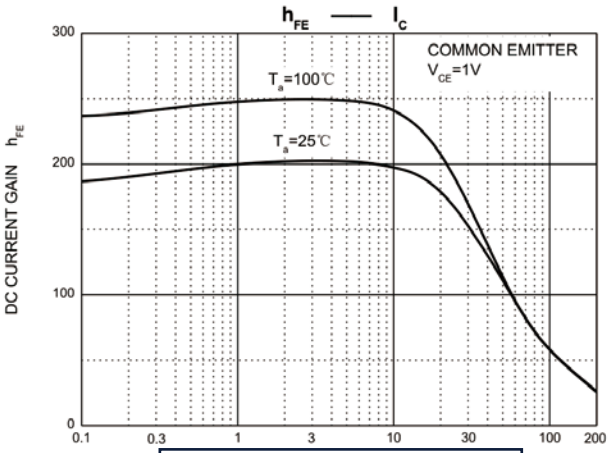
Symbol	Parameter	Test conditions	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=0.01mA, I_E=0	60			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=1mA, I_B=0	40			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=0.01mA, I_C=0	6			V
I_{CBO}	Collector cut-off current	V_{CB}=30V, I_E=0			50	nA
I_{CEX}	Collector cut-off current	V_{CE}=30V,V_{EB}=3V			50	nA
I_{EBO}	Emitter cut-off current	V_{EB}=5V,I_C=0			50	nA
$h_{FE(1)}$	DC current gain	V_{CE}=1V, I_C=0.1mA	40			
$h_{FE(2)}$		V_{CE}=1V, I_C=1mA	70			
$h_{FE(3)}$		V_{CE}=1V, I_C=10mA	100		300	
$h_{FE(4)}$		V_{CE}=1V, I_C=50mA	60			
$V_{CE(sat)}$	Collector-emitter saturation voltage	I_C=10mA,I_B=1mA			0.2	V
		I_C=50mA,I_B=5mA			0.3	V
$V_{BE(sat)}$	Base-emitter saturation voltage	I_C=10mA,I_B=1mA	0.65		0.85	V
		I_C=50mA,I_B=5mA			0.95	V
f_T	Transition frequency	V_{CE}=20V,I_C=10mA, f=100MHz	300			MHz
C_{ob}	Collector output capacitance	V_{CB}=5V,I_E=0,f=1MHz			4	pF
t_d	Delay time	V_{CC}=3V, $V_{BE(off)}$=0.5V I_C=10mA, I_{B1}= -I_{B2}=1mA			35	ns
t_r	Rise time				35	
t_s	Storage time	V_{CC}=3V, I_C=10mA, I_{B1}=-I_{B2}=1mA			200	ns
t_f	Fall time				50	

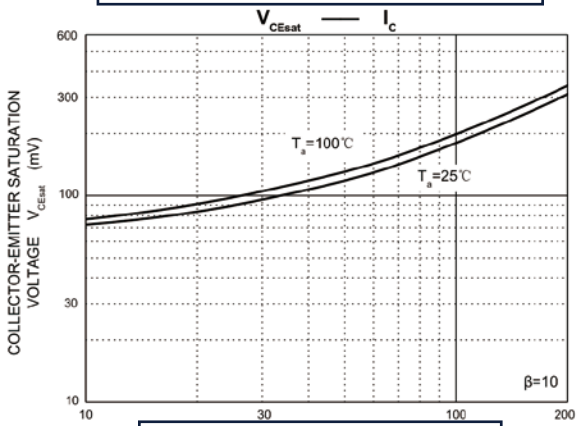
Ordering information

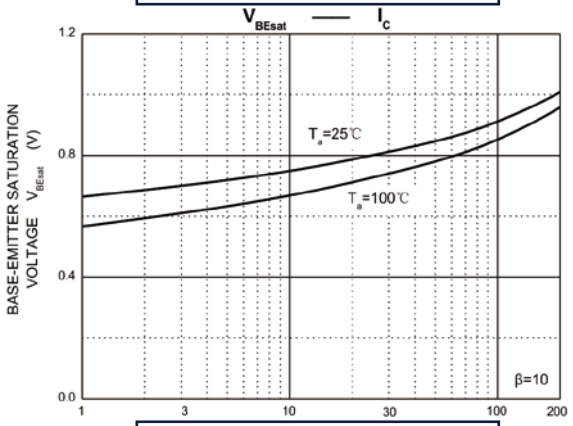
Product ID	Pack	Naming rule	Marking	hFE(1)	Qty(PCS)
PZT3904	SOT-223	PZT3904 (产品名称 product name)	ZT3904	100-300	1000

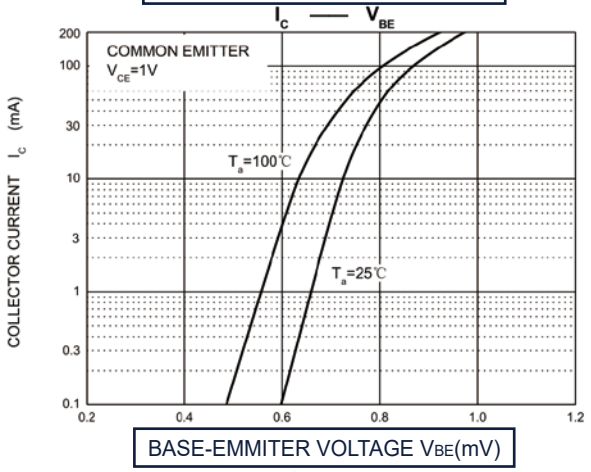
Typical Characteristics

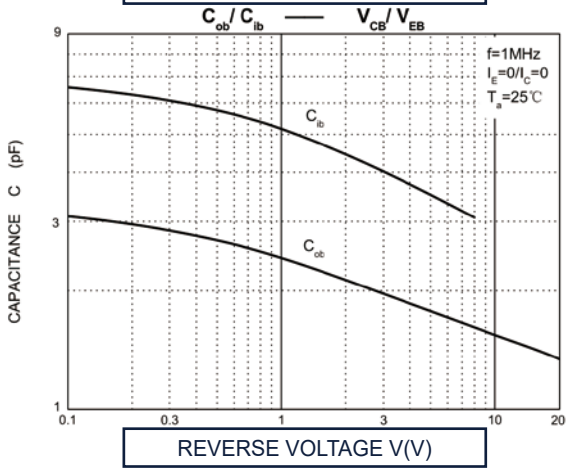


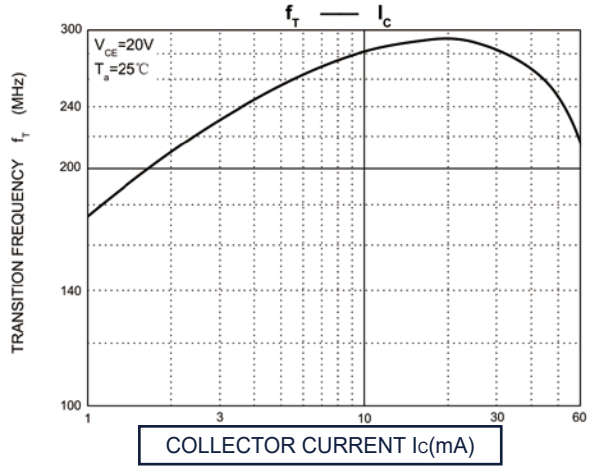


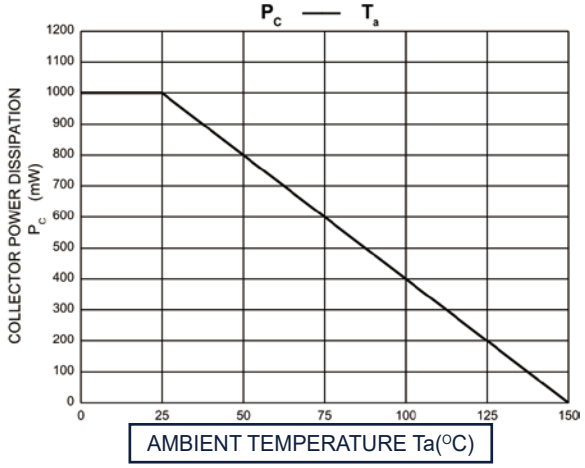




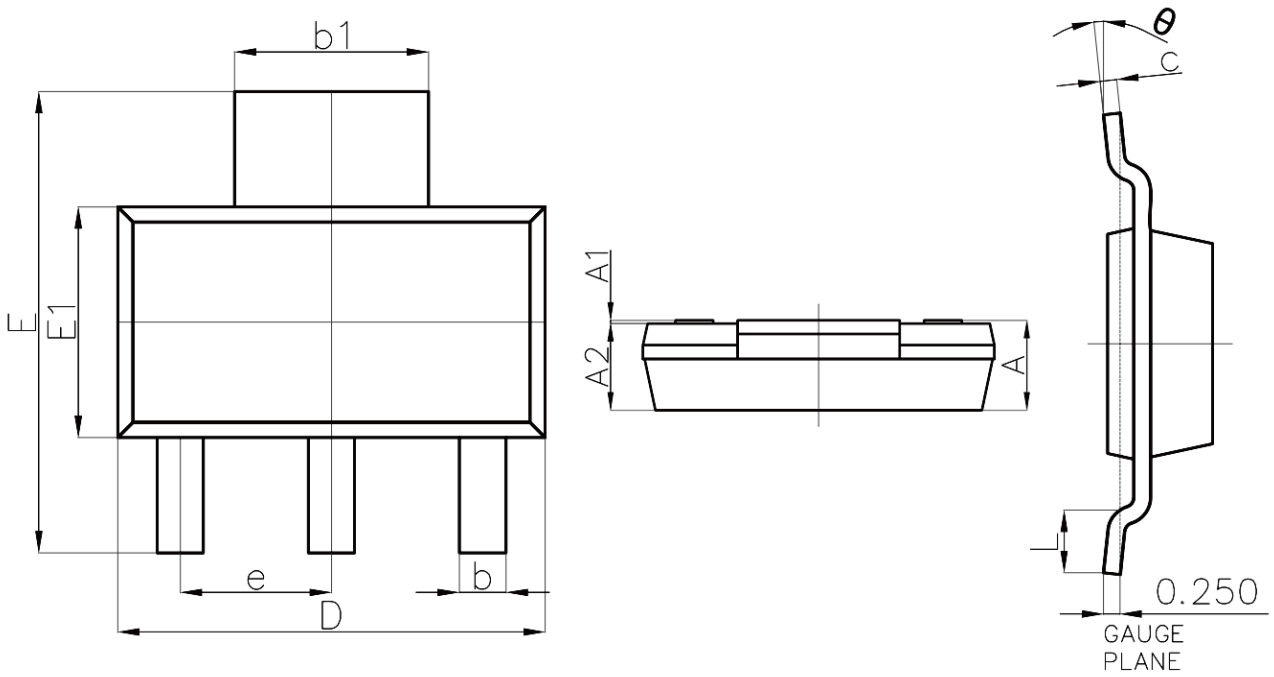








SOT-223 Package Outline Dimensions



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
b1	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°