TDD DAYA SEMICONDUCTOR

RoHS COMPLIANT Pb Pb-Free

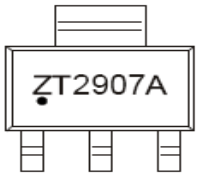
SOT-223 Plastic-Encapsulate Transistors

PZT2907A TRANSISTOR (PNP)

FEATURES

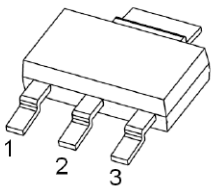
- Epitaxial planar die construction
- Complementary PNP Type available(PZT2222A)

MARKING:



Solid dot = Green molding compound device, if none,the normal device.

SOT-223



1. BASE
2. COLLECTOR
3. EMITTER

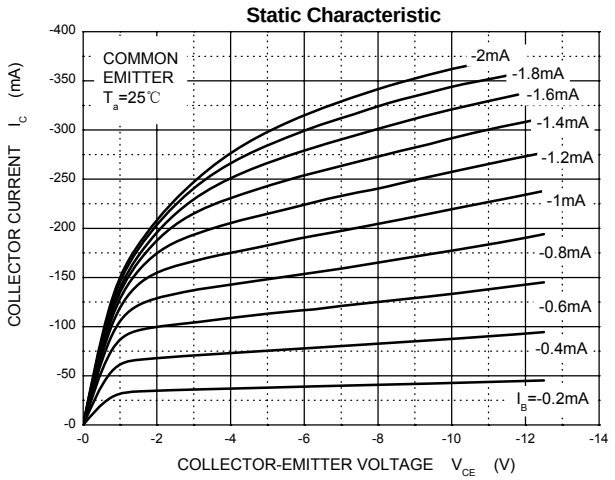
MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

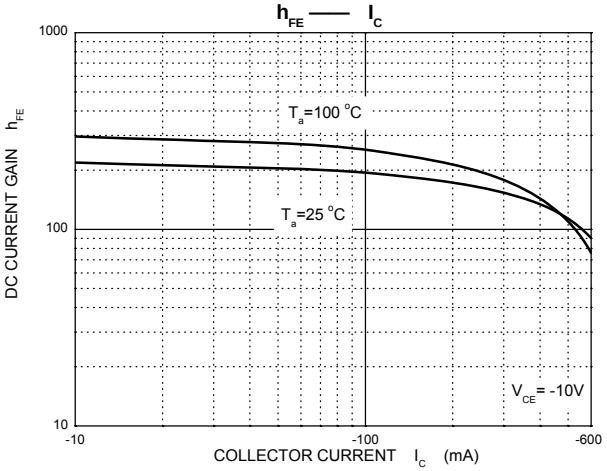
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-0.6	A
P_C	Collector Power Dissipation	1	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~+150	℃

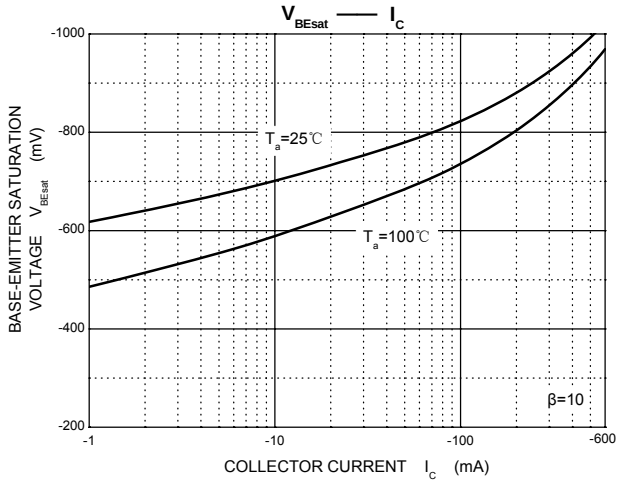
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

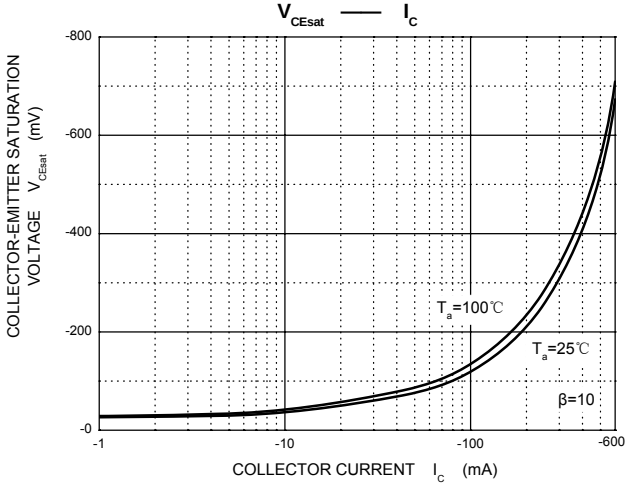
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-10μA,I_E=0	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-10mA,I_B=0	-60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-10μA,I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-50V,I_E=0			-10	nA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V,I_C=0			-50	nA
DC current gain	$h_{FE(1)}$	V_{CE}=-10V,I_C=-0.1mA	75			
	$h_{FE(2)}$	V_{CE}=-10V,I_C=-1mA	100			
	$h_{FE(3)}$	V_{CE}=-10V,I_C=-10mA	100			
	$h_{FE(4)}$	V_{CE}=-10V,I_C=-150mA	100		300	
	$h_{FE(5)}$	V_{CE}=-10V,I_C=-500mA	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-150mA,I_B=-15mA			-0.4	V
	$V_{CE(sat)}$	I_C=-500mA,I_B=-50mA			-1.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-150mA,I_B=-15mA			-1.3	V
	$V_{BE(sat)}$	I_C=-500mA,I_B=-50mA			-2.6	V
Transition frequency	f_T	V_{CE}=-20V,I_C=-50mA,f=100MHz	200			MHz
Collector capacitance	C_c	V_{CB}=-10V,I_E=0,f=1MHz			8	pF
Emitter capacitance	C_E	V_{EB}=-2V,I_C=0,f=1MHz			30	pF
Delay time	t_d	I_C=-150mA I_{B1}=- I_{B2}=- 15mA			12	ns
Rise time	t_r				30	ns
Storage time	t_S				300	ns
Fall time	t_f				65	ns

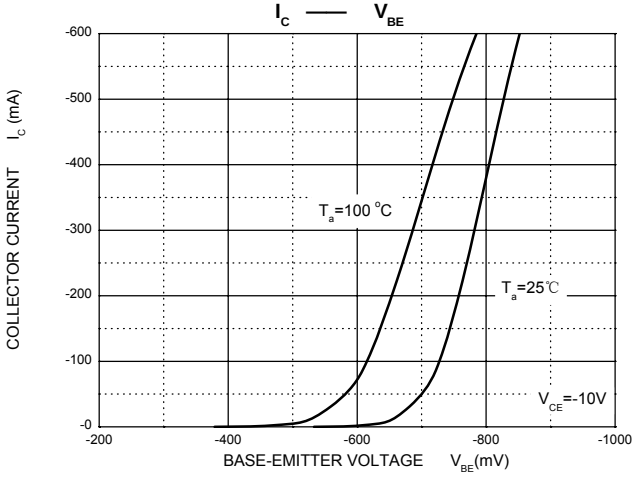
Typical Characteristics

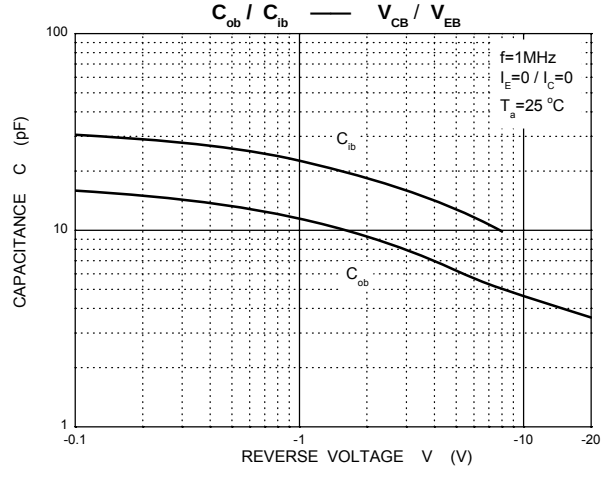


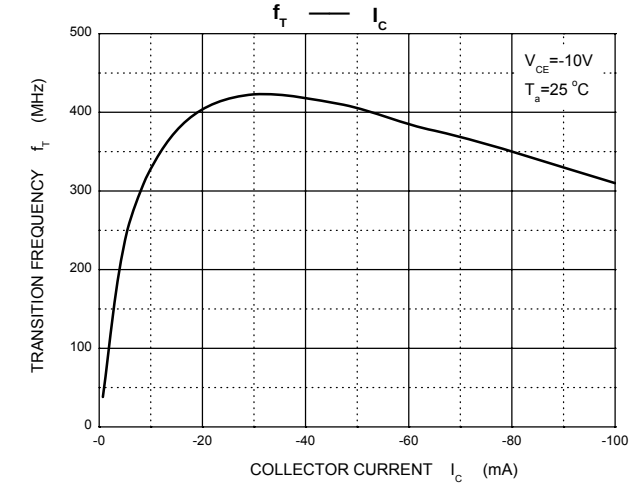


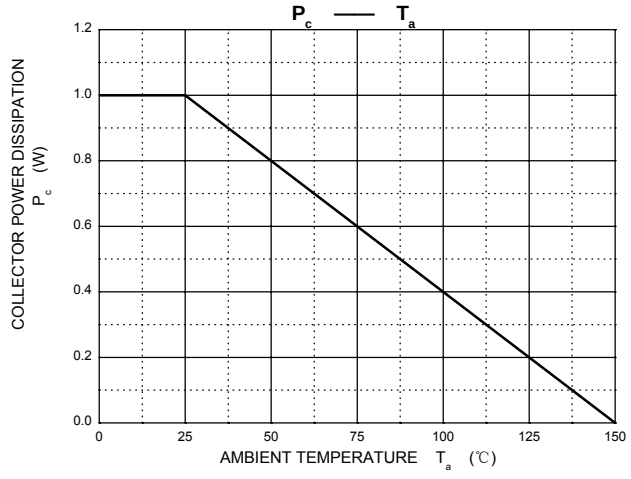




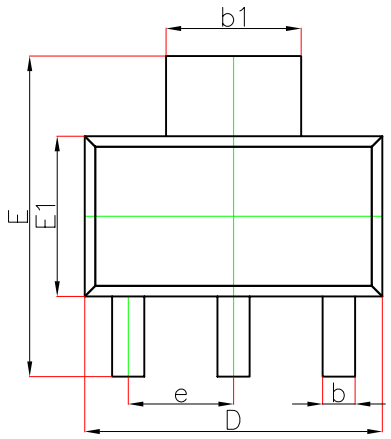


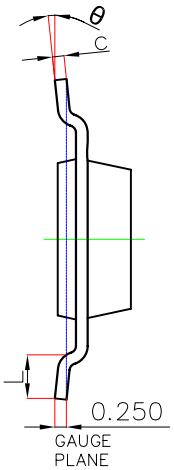


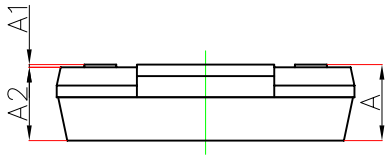




SOT-223 Package Outline Dimensions

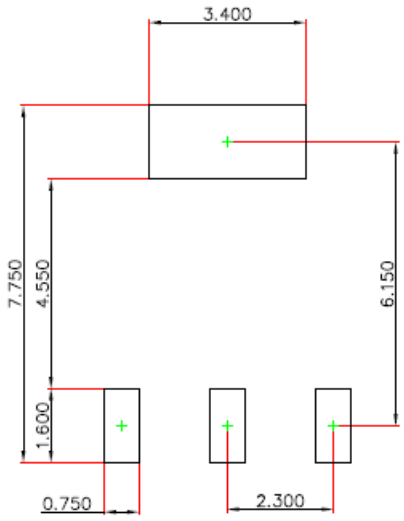






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	——	1.800	——	0.071
A1	0.020	0.100	0.001	0.004
A2	1.500	1.700	0.059	0.067
b	0.660	0.840	0.026	0.033
b1	2.900	3.100	0.114	0.122
c	0.230	0.350	0.009	0.014
D	6.300	6.700	0.248	0.264
E	6.700	7.300	0.264	0.287
E1	3.300	3.700	0.130	0.146
e	2.300(BSC)		0.091(BSC)	
L	0.750	——	0.030	——
θ	0°	10°	0°	10°

SOT-223 Suggested Pad Layout



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