PZTA94 TRANSISTOR (PNP)

FEATURES

- High Voltage Driver Applications

1.BASE

2.COLLECTOR

3.EMITTER

SOT-223
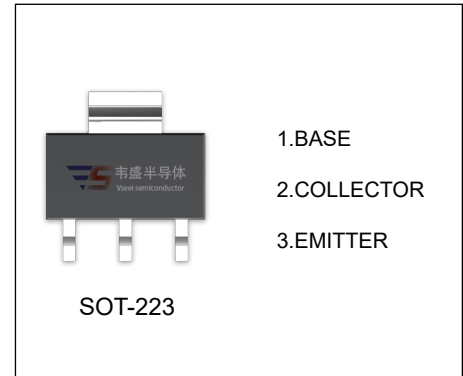
MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-400	V
V_{CEO}	Collector-Emitter Voltage	-400	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-0.2	A
I_{CM}	Collector Current- Pulsed	-0.3	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)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-0.1mA,I_E=0	-400			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA,I_B=0	-400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-0.1mA,I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-400V,I_E=0			-100	nA
Collector cut-off current	I_{CEO}	V_{CE}=-400V,I_B=0			-5	µA
Emitter cut-off current	I_{EBO}	V_{EB}=-4V, I_C=0			-100	nA
DC current gain	$h_{FE(1)}$	V_{CE}=-10V, I_C=-10mA	80		300	
	$h_{FE(2)}$	V_{CE}=-10V, I_C=-1mA	70			
	$h_{FE(3)}$	V_{CE}=-10V, I_C=-100mA	60			
	$h_{FE(4)}$	V_{CE}=-10V, I_C=-50mA	80			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-10mA,I_B=-1mA			-0.2	V
		I_C=-50mA,I_B=-5mA			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-10mA,I_B=-1mA			-0.75	V
Transition frequency	f_T	V_{CE}=-20V,I_C=-10mA, f=30MHz	50			MHz

Static Characteristic

COMMON EMITTER T_a=25℃

COLLECTOR CURRENT I_C (mA)

-100uA
-90uA
-80uA
-70uA
-60uA
-50uA
-40uA
-30uA
-20uA
I_B=-10uA

COLLECTOR-EMITTER VOLTAGE V_{CE} (V)

h_{FE} ── I_C

V_{CE}= -10V

DC CURRENT GAIN h_{FE}

T_a=100 ℃

T_a=25 ℃

COLLECTOR CURRENT I_C (mA)

V_{BEsat} ── I_C

β=10

BASE-EMITTER SATURATION VOLTAGE V_{BEsat} (mV)

T_a=25℃

T_a=100℃

COLLECTOR CURRENT I_C (mA)

V_{CEsat} ── I_C

β=10

COLLECTOR-EMITTER SATURATION VOLTAGE V_{CEsat} (V)

T_a=100℃

T_a=25℃

COLLECTOR CURRENT I_C (mA)

f_T ── I_C

V_{CE}=-20V
T_a=25 ℃

TRANSITION FREQUENCY f_T (MHz)

COLLECTOR CURRENT I_C (mA)

C_{ob} / C_{ib} ── V_{CB} / V_{EB}

f=1MHz
I_E=0 / I_C=0
T_a=25 ℃

CAPACITANCE C (pF)

C_{ib}

C_{ob}

REVERSE VOLTAGE V (V)

P_c ── T_a

COLLECTOR POWER DISSIPATION P_c (mW)

AMBIENT TEMPERATURE T_a (℃)