PZT4403 TRANSISTOR (PNP)

FEATURES

- Low Voltage and High Current
- Complementary to PZT4401
- Linear Amplifier and Switch Applications

1.BASE
2.COLLECTOR
3.EMITTER

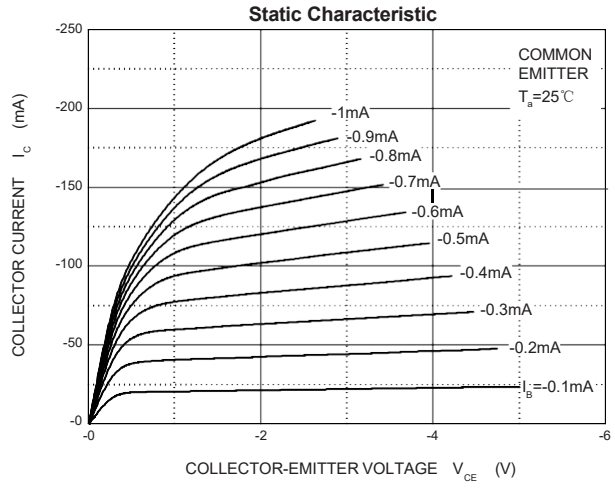
SOT-223

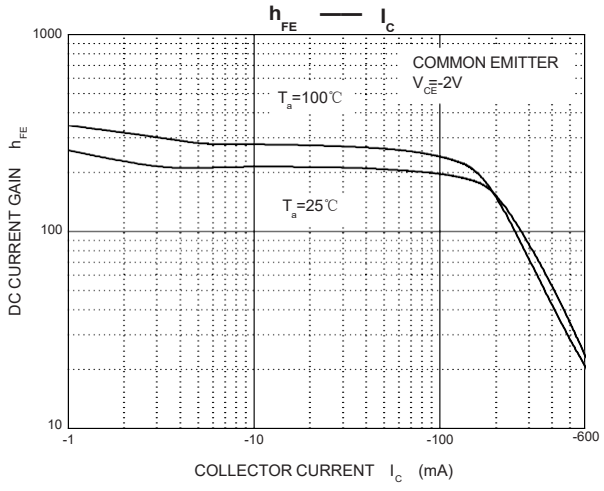
MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

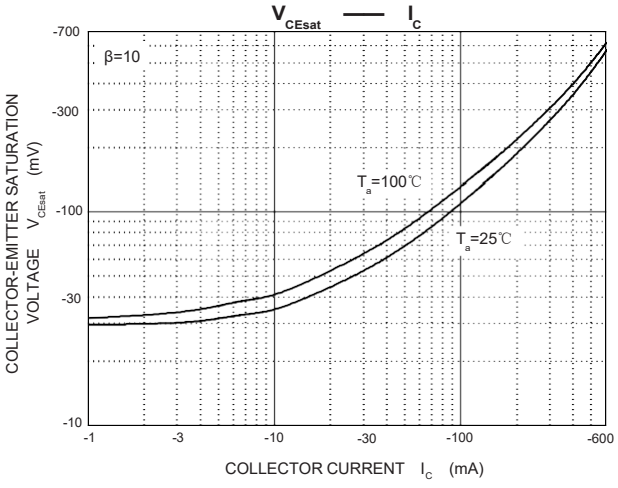
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-40	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current	-600	mA
P_C	Collector Power Dissipation	1	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	125	℃/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

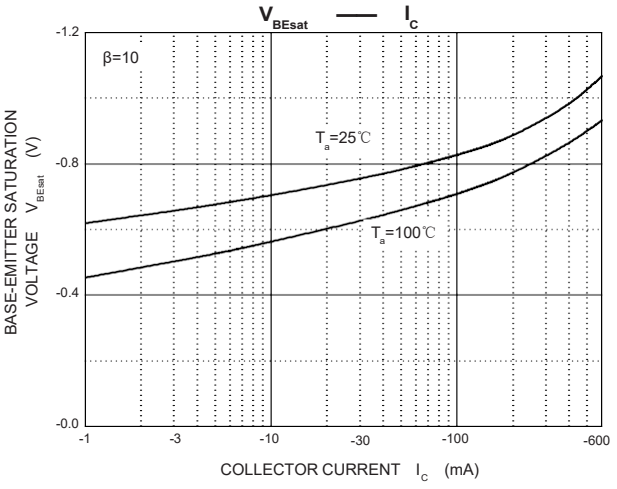
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

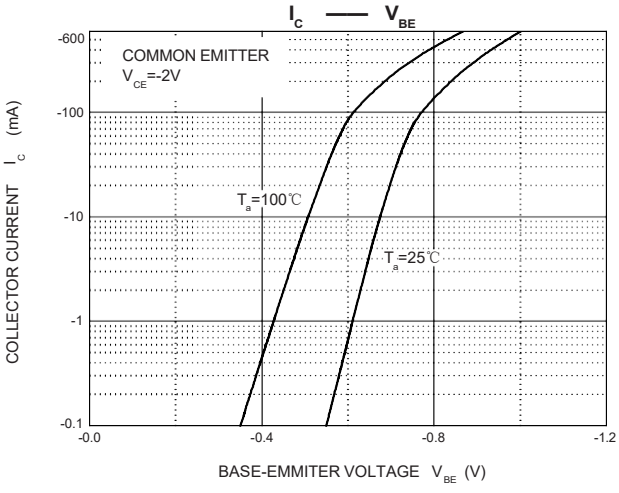
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-0.1mA,I_E=0	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA,I_B=0	-40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-0.1mA,I_C=0	-6			V
Collector cut-off current	I_{CBO}	V_{CB}=-40V,I_E=0			-50	nA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V, I_C=0			-50	nA
DC current gain	$h_{FE(1)}$	V_{CE}=-1V, I_C=-0.1mA	30			
	$h_{FE(2)}$	V_{CE}=-1V, I_C=-1mA	60			
	$h_{FE(3)}$	V_{CE}=-1V, I_C=-10mA	100			
	$h_{FE(4)}$	V_{CE}=-2V, I_C=-150mA	100		300	
	$h_{FE(5)}$	V_{CE}=-2V, I_C=-500mA	20			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-150mA,I_B=-15mA			-0.4	V
		I_C=-500mA,I_B=-50mA			-0.75	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-150mA,I_B=-15mA			-0.95	V
		I_C=-500mA,I_B=-50mA			-1.3	V
Transition frequency	f_T	V_{CE}=-10V,I_C=-20mA, f=100MHz	200			MHz
Collector output capacitance	C_{ob}	V_{CB}=-5V, I_E=0, f=1MHz			8.5	pF
Emitter input capacitance	C_{ib}	V_{EB}=-0.5V, I_C=0, f=1MHz			35	pF

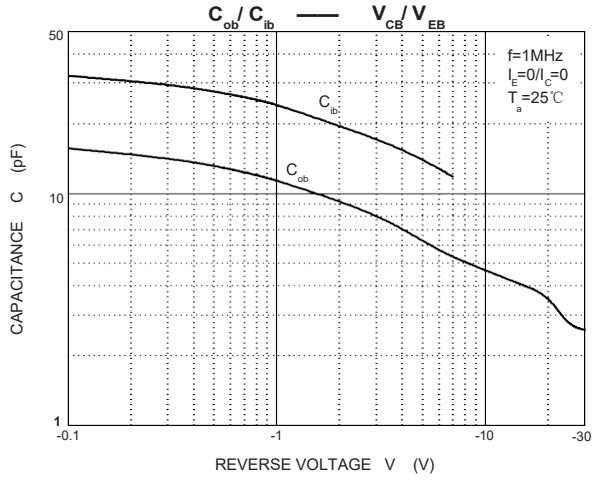

Static Characteristic
COMMON EMITTER
Ta=25℃
-1mA
-0.9mA
-0.8mA
-0.7mA
-0.6mA
-0.5mA
-0.4mA
-0.3mA
-0.2mA
IB=-0.1mA
COLLECTOR CURRENT IC (mA)
COLLECTOR-EMITTER VOLTAGE VCE (V)

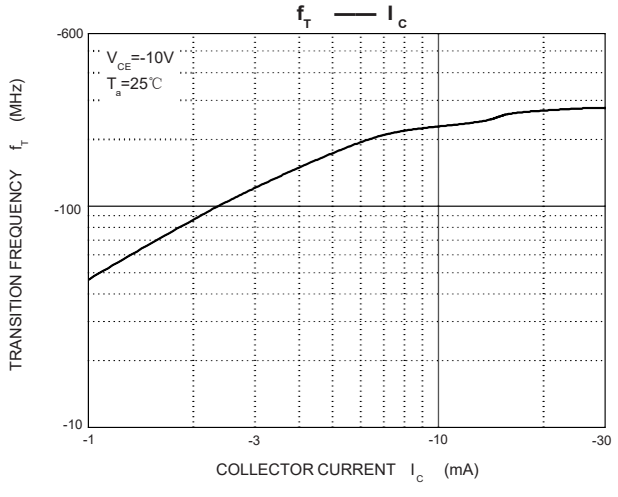

hFE — IC
COMMON EMITTER
VCE=-2V
Ta=100℃
Ta=25℃
DC CURRENT GAIN hFE
COLLECTOR CURRENT IC (mA)

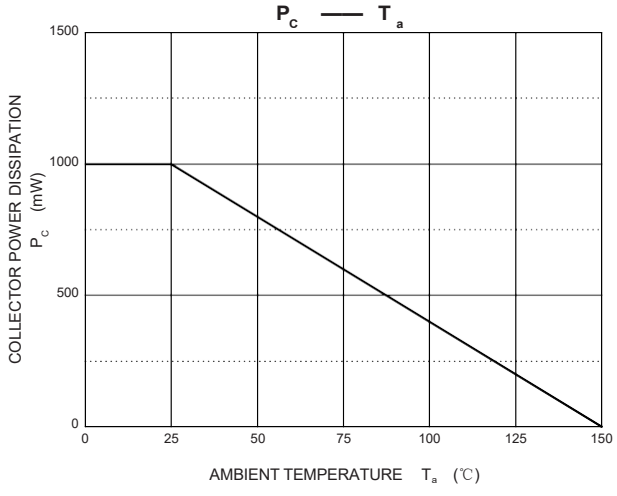

VCEsat — IC
β=10
Ta=100℃
Ta=25℃
COLLECTOR-EMITTER SATURATION VOLTAGE VCEsat (mV)
COLLECTOR CURRENT IC (mA)


VBEsat — IC
β=10
Ta=25℃
Ta=100℃
BASE-EMITTER SATURATION VOLTAGE VBEsat (V)
COLLECTOR CURRENT IC (mA)


IC — VBE
COMMON EMITTER
VCE=-2V
Ta=100℃
Ta=25℃
COLLECTOR CURRENT IC (mA)
BASE-EMMITER VOLTAGE VBE (V)


Cob / Cib — VCB / VEB
f=1MHz
IE=0/IC=0
Ta=25℃
Cib
Cob
CAPACITANCE C (pF)
REVERSE VOLTAGE V (V)


fT — IC
VCE=-10V
Ta=25℃
TRANSITION FREQUENCY fT (MHz)
COLLECTOR CURRENT IC (mA)


PC — Ta
COLLECTOR POWER DISSIPATION PC (mW)
AMBIENT TEMPERATURE Ta (℃)