PZT4401 TRANSISTOR (NPN)

FEATURES

- Low Voltage and High Current
- Complementary to PZT4403
- Linear Amplifier and Switch Applications

1.BASE
2.COLLECTOR
3.EMITTER

SOT-223

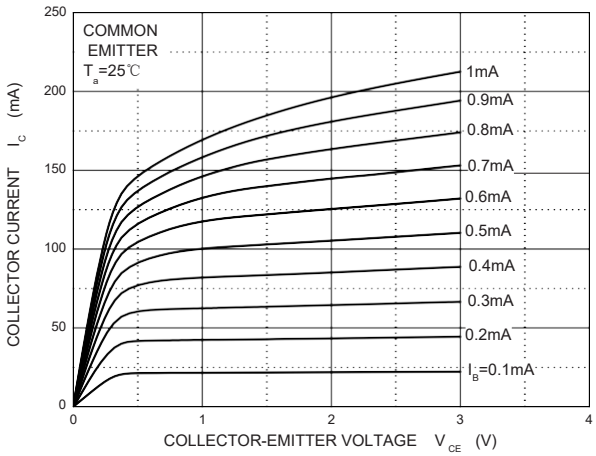
MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	60	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	℃

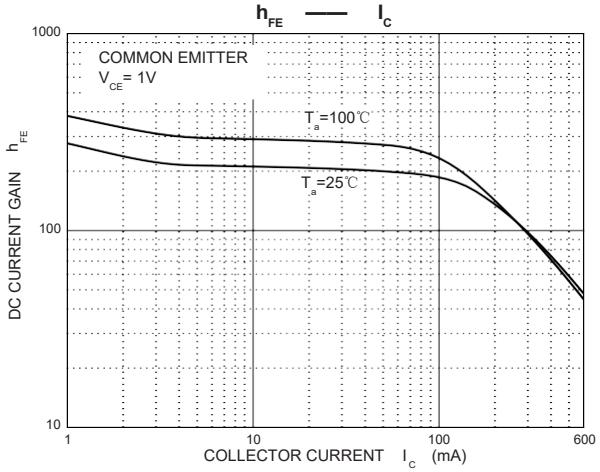
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=0.1mA,I_E=0	60			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}=60V,I_E=0			50	nA
Emitter cut-off current	I_{EBO}	V_{EB}=6V, I_C=0			50	nA
DC current gain	$h_{FE(1)}$	V_{CE}=1V, I_C=0.1mA	20			
	$h_{FE(2)}$	V_{CE}=1V, I_C=1mA	40			
	$h_{FE(3)}$	V_{CE}=1V, I_C=10mA	80			
	$h_{FE(4)}$	V_{CE}=1V, I_C=150mA	100		300	
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			1.2	V
Transition frequency	f_T	V_{CE}=10V,I_C=20mA, f=100MHz	250			MHz
Collector output capacitance	C_{ob}	V_{CB}=5V, I_E=0, f=1MHz			8	pF
Emitter input capacitance	C_{ib}	V_{EB}=0.5V, I_C=0, f=1MHz			30	pF

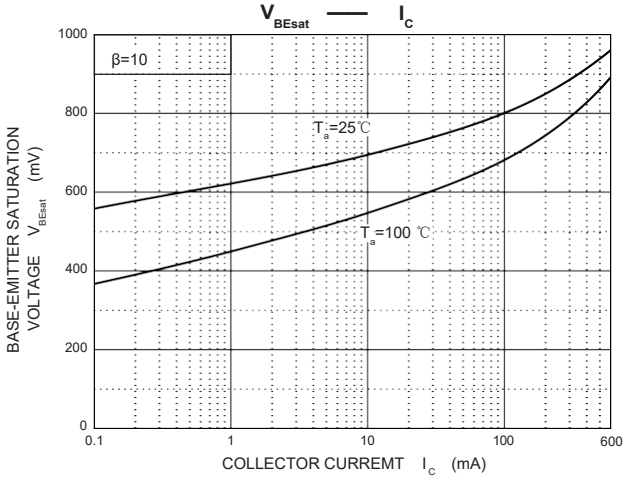
Static Characteristic



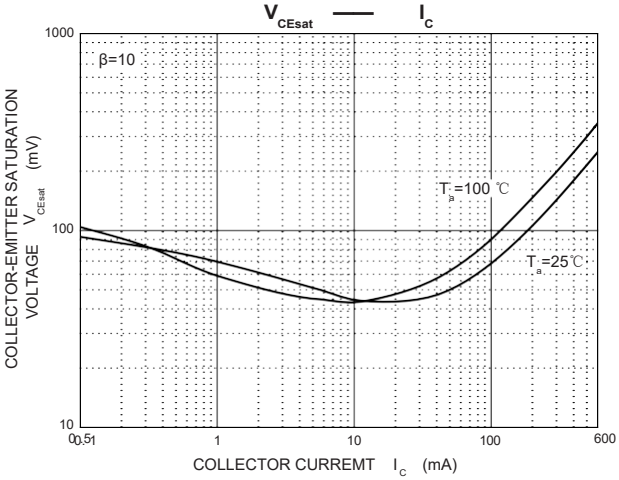
h_{FE} —— I_C



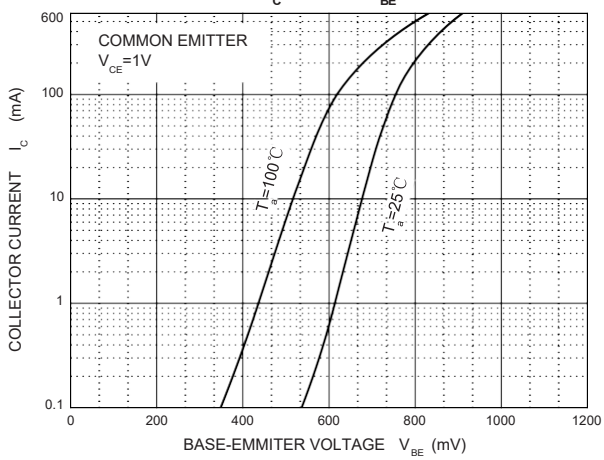
V_{BEsat} —— I_C



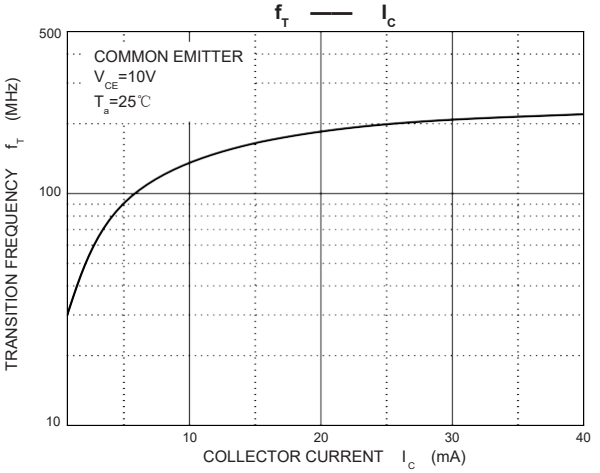
V_{CEsat} —— I_C



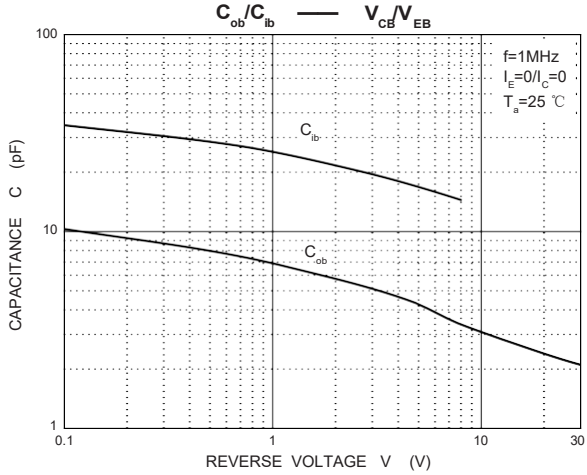
I_C —— V_{BE}



f_T —— I_C



C_{ob}/C_{ib} —— V_{CB}/V_{EB}



P_C —— T_a