



SOT-223 Plastic-Encapsulate Transistors

PZT2222A TRANSISTOR (NPN)

FEATURES

- Epitaxial planar die construction
- Complementary PNP Type available (PZT2907A)

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

Symbol	Parameter	Value	Units
V _{CBO}	Collector-Base Voltage	75	V
V _{CEO}	Collector-Emitter Voltage	40	V
V _{EBO}	Emitter-Base Voltage	6	V
I _C	Collector Current -Continuous	600	mA
P _C	Collector Power Dissipation	1	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55 to +150	°C

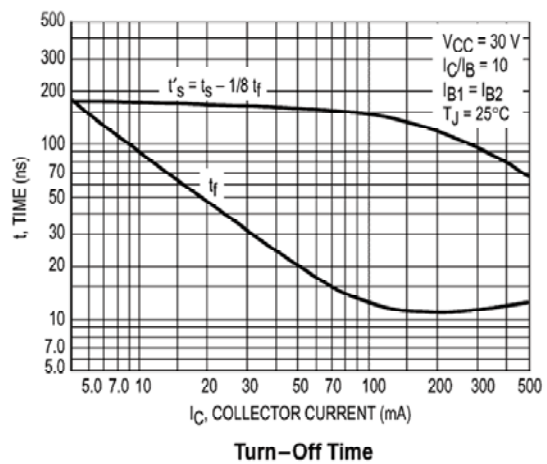
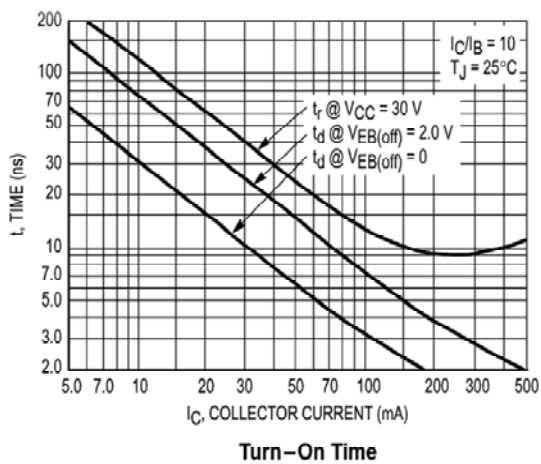
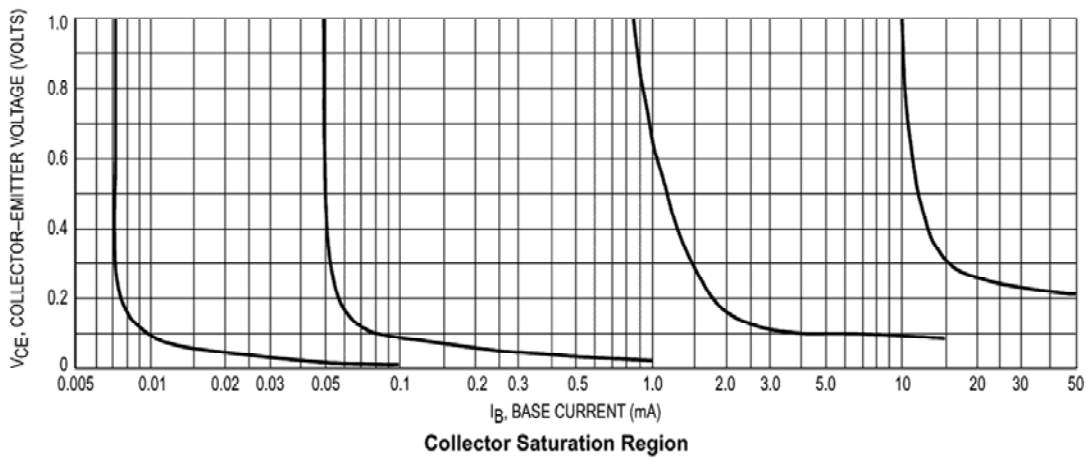
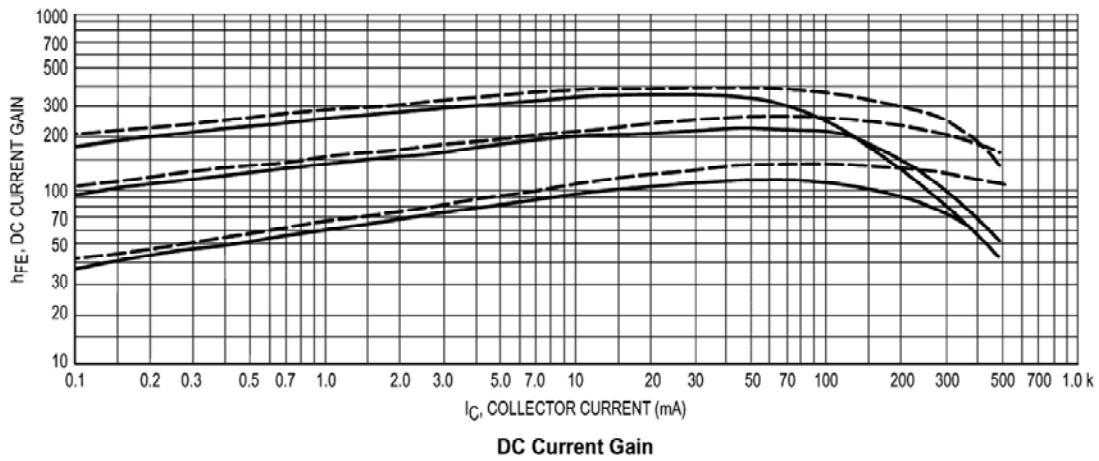
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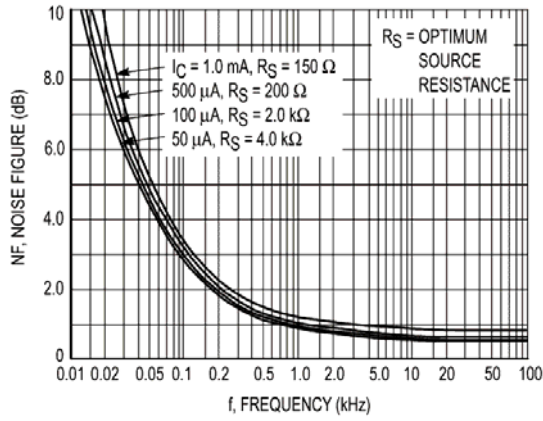


1. BASE
2. COLLECTOR
3. EMITTER

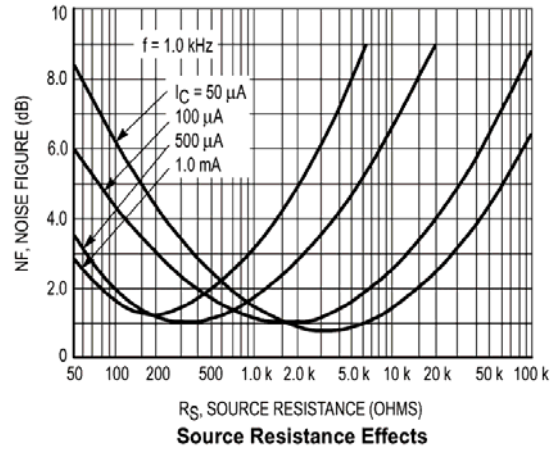
ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = 10μ A, I _E =0	75		V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = 10mA, I _B =0	40		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =10μA, I _C =0	6		V
Collector cut-off current	I _{CBO}	V _{CB} =60V, I _E =0		10	nA
Collector cut-off current	I _{CEX}	V _{CE} =60V, V _{BE(off)} =3V		10	nA
Emitter cut-off current	I _{EBO}	V _{EB} = 3V , I _C =0		10	nA
DC current gain	h _{FE(1)}	V _{CE} =10V, I _C = 0.1mA	35		
	h _{FE(2)}	V _{CE} =10V, I _C = 1mA	50		
	h _{FE(3)}	V _{CE} =10V, I _C = 10mA	75		
	h _{FE(4)}	V _{CE} =10V, I _C = 150mA	100	300	
	h _{FE(5)}	V _{CE} =1V, I _C = 150mA	50		
	h _{FE(6)}	V _{CE} =10V, I _C = 500mA	40		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =500mA, I _B = 50mA		1	V
	V _{CE(sat)}	I _C =150mA, I _B = 15mA		0.3	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =500mA, I _B = 50mA		2.0	V
	V _{BE(sat)}	I _C =150mA, I _B =15mA		1.2	V
Transition frequency	f _T	V _{CE} =20V, I _C = 20mA, f=100MHz	300		MHz
Output Capacitance	C _{ob}	V _{CB} =10V, I _E = 0, f=1MHz		8	pF
Delay time	t _d	V _{CC} =30V, I _C =150mA		10	nS
Rise time	t _r	V _{BE(off)} =0.5V, I _{B1} =15mA		25	nS
Storage time	t _s	V _{CC} =30V, I _C =150mA		225	nS
Fall time	t _f	I _{B1} =-I _{B2} = 15mA		60	nS

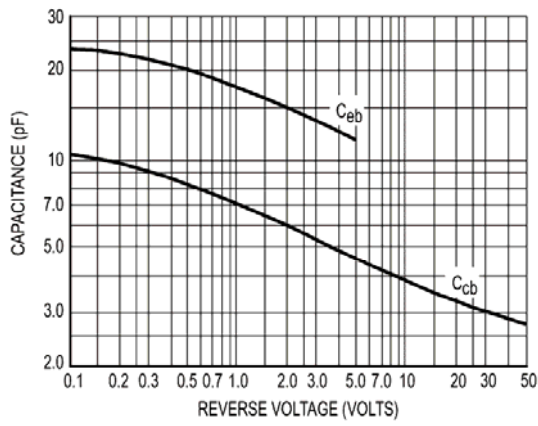




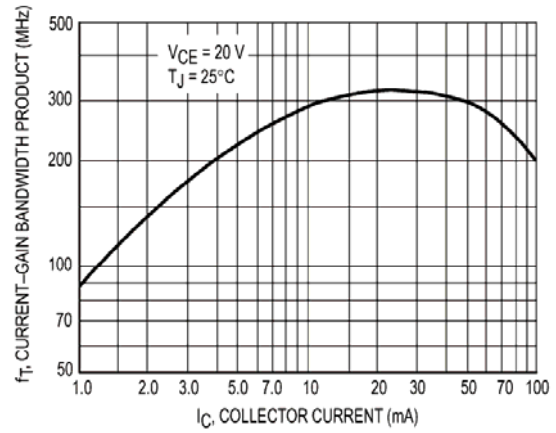
Frequency Effects



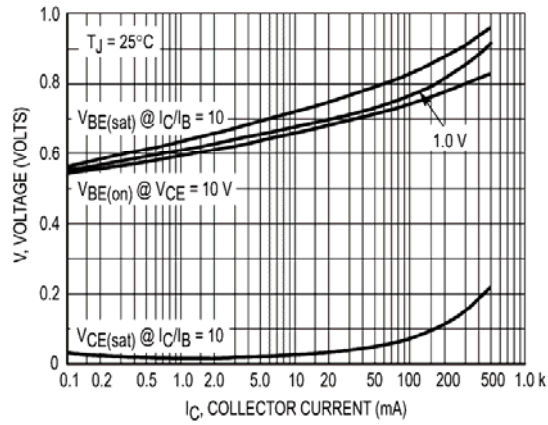
Source Resistance Effects



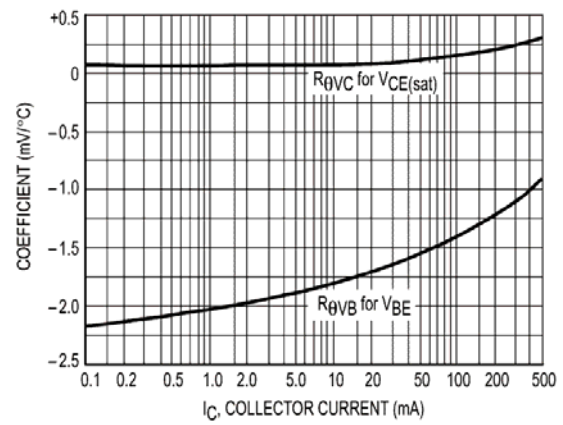
Capacitances



Current-Gain Bandwidth Product



"On" Voltages



Temperature Coefficients