



DESCRIPTION

The PZT2222A is available in SOT-223 package

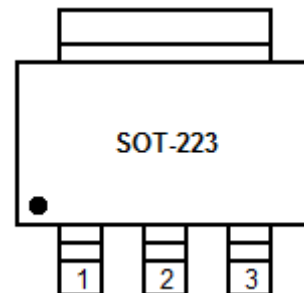
ORDERING INFORMATION

Package Type	Part Number
SOT-223	PZT2222A
Note	SPQ: 1,000pcs/Reel
AiT provides all RoHS Compliant Products	

FEATURES

- Power Dissipation
 P_{CM} : 1W ($T_{amb}=25^{\circ}C$)
- Collector Current
 I_{CM} : 0.6A
- Collector-Base Voltage
 $V_{(BR)CBO}$: 75V
- Operating and Storage Junction Temperature Range
 T_J, T_{STG} : $-55^{\circ}C$ to $150^{\circ}C$
- Available in SOT-223 package

PIN DESCRIPTION



1. BASE
2. COLLECTOR
3. EMITTER



ELECTRICAL CHARACTERISTICS

T_{amb}=25°C, unless otherwise specified

Parameter	Symbol	Conditions	Min.	Max.	Unit
Collector-Base Breakdown Voltage	V _{(BR)CBO}	I _C =10μA, 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	6.0		V
Collector Cut-Off Current	I _{CBO}	V _{CB} =60V, I _E =0		0.01	μA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =3.0V, I _C =0		0.01	μA
DC Current Gain	h _{FE(1)}	I _C =0.1mA, V _{CE} =10V	35		-
	h _{FE(2)}	I _C =1.0mA, V _{CE} =10V	50		-
	h _{FE(3)}	I _C =10mA, V _{CE} =10V	75		-
	h _{FE(4)}	I _C =150mA, V _{CE} =10V	100	300	-
	h _{FE(5)}	I _C =150mA, V _{CE} =1.0V	50		-
	h _{FE(6)}	I _C =500mA, V _{CE} =10V	40		-
Collector- Emitter Saturation Voltage	V _{CE(sat)}	I _C =500mA, I _B =50mA		1.0	V
		I _C =150mA, I _B =15mA		0.3	
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C =500mA, I _B =50mA		2.0	V
		I _C =150mA, I _B =15mA	0.6	1.2	
Transition Frequency	f _T	I _C =20mA, V _{CE} =20V, f=100MHz	300		MHz
Output Capacitance	C _{ob}	I _E =0, V _{CB} =10V, 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



SWITCHING TIME EQUIVALENT TEST CIRCUITS

Figure. 1 Turn-on Time

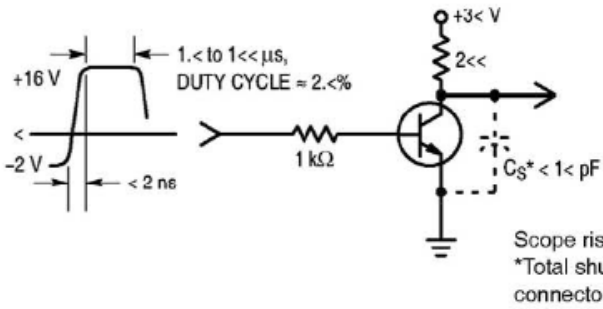


Figure. 2 Turn-off Time

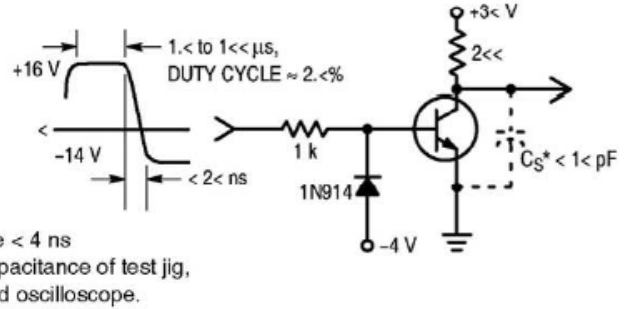


Figure. 3 DC Current Gain

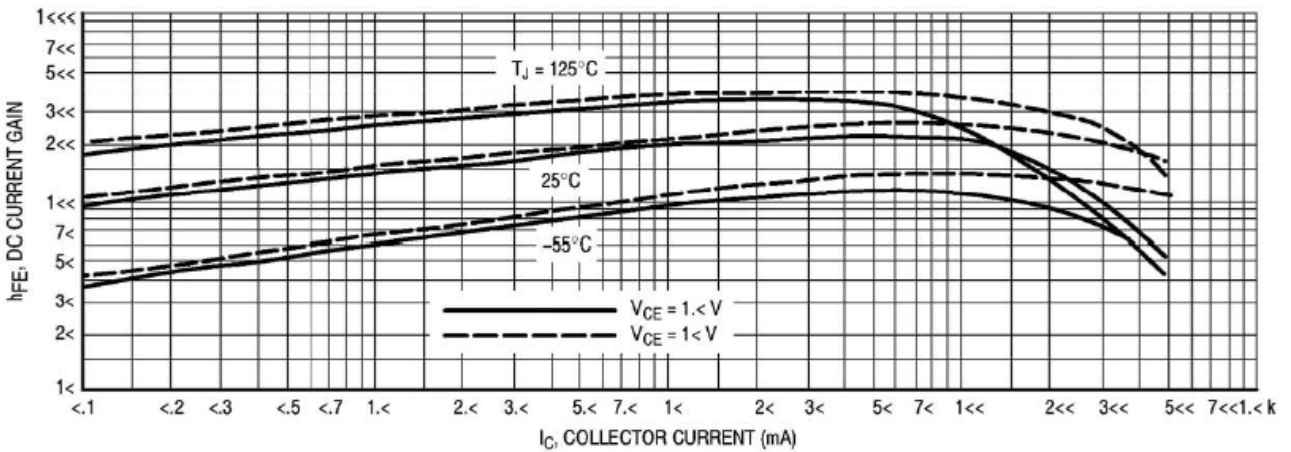


Figure. 4 Collector Saturation Region

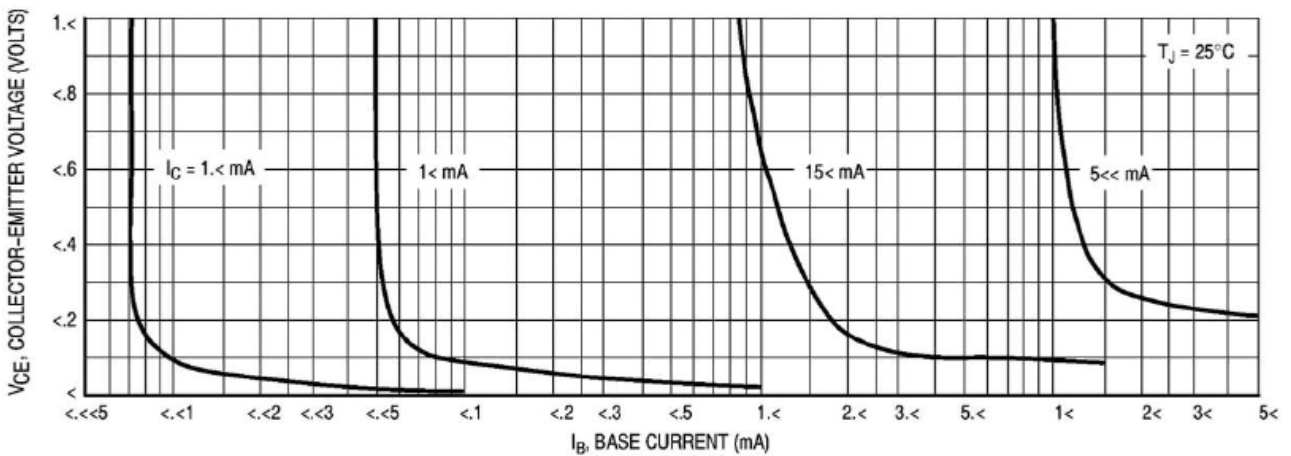




Figure. 5 Turn-on Time

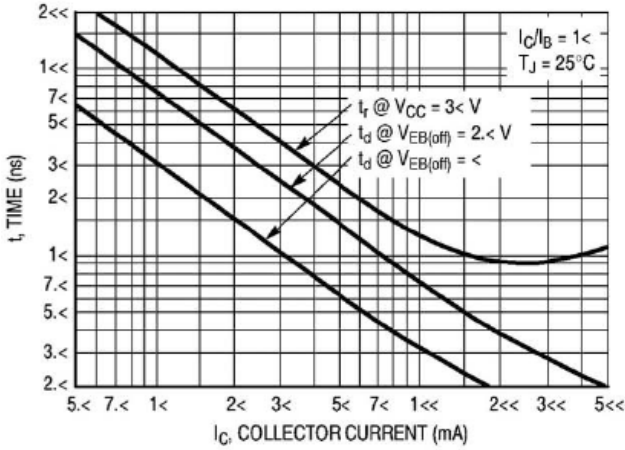


Figure. 6 Turn-off Time

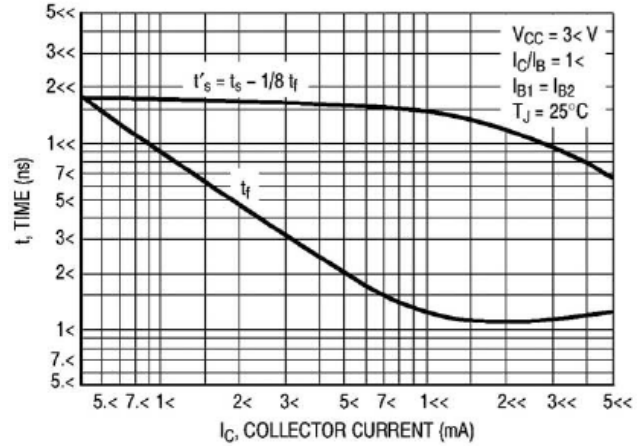


Figure. 7 Frequency Effects

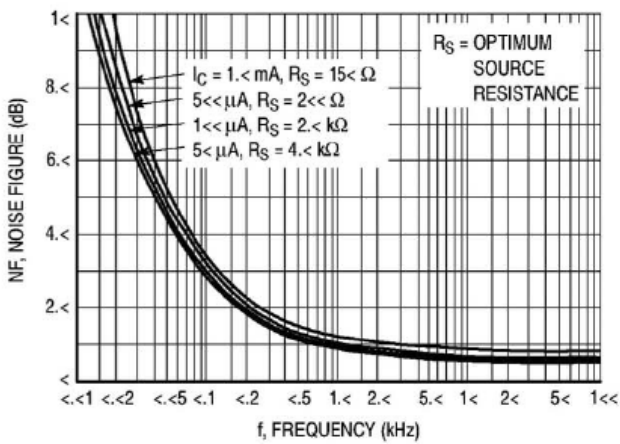


Figure. 8 Source Resistance Effects

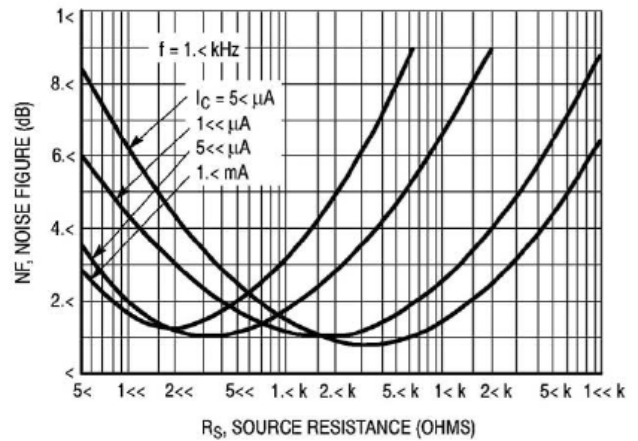


Figure. 9 Capacitances

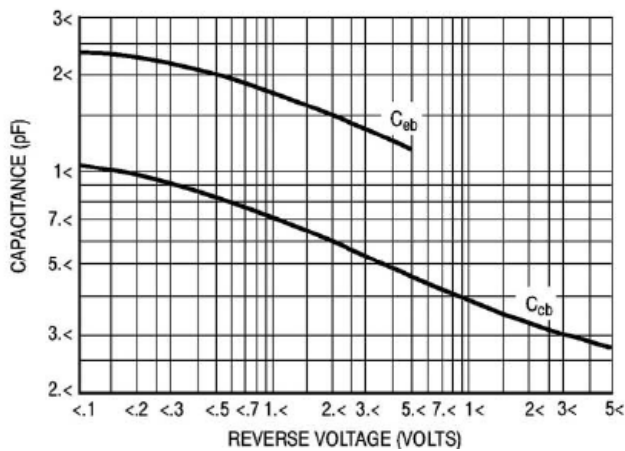


Figure. 10 Current-Gain Bandwidth Product

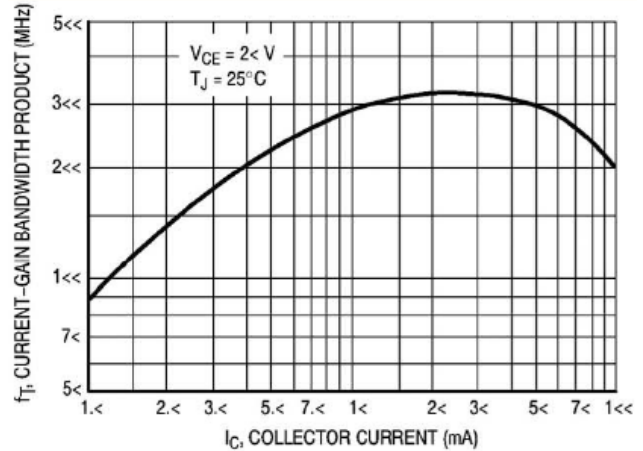
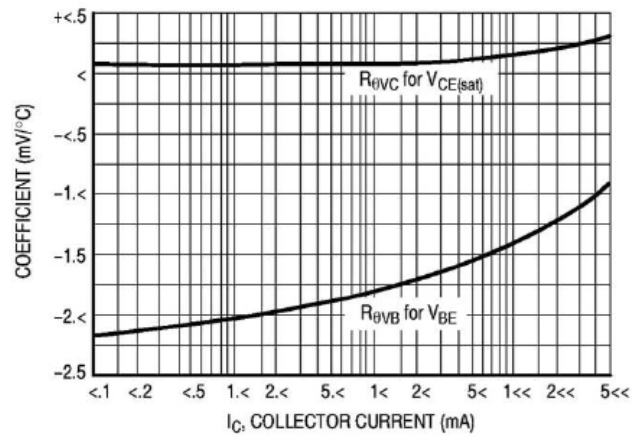
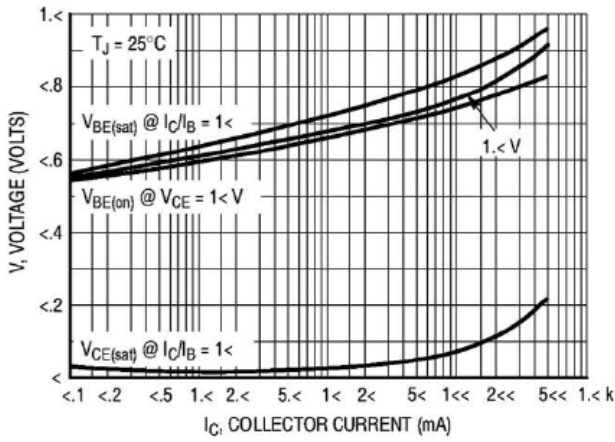


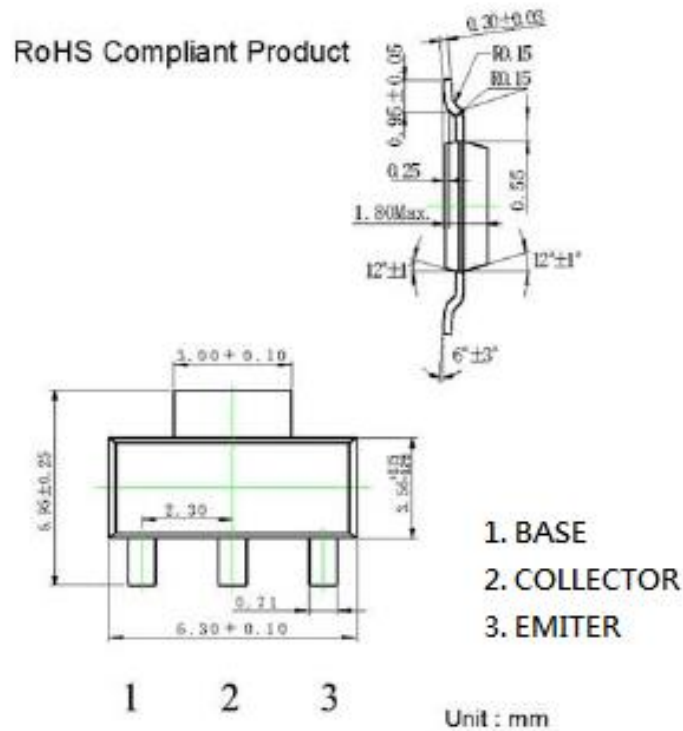
Figure. 11 "On" Voltages

Figure. 12 Temperature Coefficients



PACKAGE INFORMATION

Dimension in SOT-223 (Unit: mm)





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