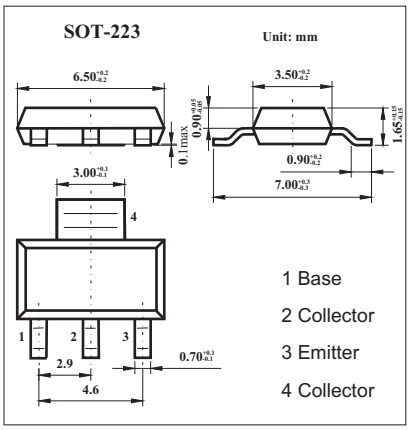
NPN General Pupose Amplifier

PZT4401



Features

Power dissipation P_C=1W

Collector current (DC) I_C=600mA

Complementary PNP Type Available (PZT4403)

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	60	V
Collector-emitter voltage	V_{CEO}	40	V
Emitter-base voltage	V_{EBO}	6.0	V
Collector current	I_C	600	mA
Total Device Dissipation Alumina Substrate	P_C	1	W
Junction and Storage Temperature	T_J, T_{stg}	-55 to150	℃

PZT4401

Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test conditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C = 100μA, I_E = 0	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = 1.0 mA, I_B = 0	40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E =100μA, I_C = 0	6.0			V
Collector cut-off current	I_{CBO}	V_{CB}=50 V, I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V, I_C=0			0.1	μA
DC current gain *	h_{FE}	I_C = 0.1 mA, V_{CE} = 1.0 V I_C = 1.0 mA, V_{CE} = 1.0 V I_C = 10 mA, V_{CE} = 1.0 V I_C = 150 mA, V_{CE} = 1.0 V I_C = 500 mA, V_{CE} = 2.0 V	20 40 80 100 40		300	
Collector-emitter saturation voltage *	$V_{CE(sat)}$	I_C = 150 mA, I_B = 15 mA			0.4	V
		I_C = 500 mA, I_B = 50 mA			0.75	
Base-emitter saturation voltage *	$V_{BE(sat)}$	I_C = 150 mA, I_B = 15 mA			0.95	V
		I_C = 500 mA, I_B = 50 mA			1.2	
Transition frequency	f_T	I_C = 20 mA, V_{CE} = 10 V, f = 100 MHz	250			MHz
Delay time	t_d	V_{CC} = 30 V, V_{EB} = 2.0 V,			15	ns
Rise time	t_r	I_C = 150 mA, I_{B1} = 15 mA			20	ns
Storage time	t_s	V_{CC} = 30 V, I_C = 150 mA,			225	ns
Fall time	t_f	I_{B1} = I_{B2} = 15 mA			30	ns

* Pulse test: pulse width 300 μs, duty cycle 2.0%.

Marking

Marking	4401