

### PZT4403 TRANSISTOR (PNP)

#### FEATURES

Power dissipation

$$P_{CM}: 1 \text{ W (Tamb=25°C)}$$

Collector current

$$I_{CM}: -0.6 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO}: -40 \text{ V}$$

Operating and storage junction temperature range

$$T_J, T_{stg}: -55^\circ\text{C to } +150^\circ\text{C}$$

#### SOT-223



1. BASE
2. COLLECTOR
3. EMITTER

#### ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu\text{A}, I_E = 0$	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, I_B = 0$	-40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu\text{A}, I_C = 0$	-6			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -40\text{V}, I_E = 0$			-50	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5\text{V}, I_C = 0$			-50	nA
DC current gain	$h_{FE(1)}$	$V_{CE} = -1\text{V}, I_C = -0.1\text{mA}$	30			
	$h_{FE(2)}$	$V_{CE} = -1\text{V}, I_C = -1\text{mA}$	60			
	$h_{FE(3)}$	$V_{CE} = -1\text{V}, I_C = -10\text{mA}$	100			
	$h_{FE(4)}$	$V_{CE} = -1\text{V}, I_C = -150\text{mA}$	100		300	
	$h_{FE(5)}$	$V_{CE} = -2\text{V}, I_C = -500\text{mA}$	20			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -150\text{mA}, I_B = -15\text{mA}$			-0.4	V
	$V_{CE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$			-0.75	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -150\text{mA}, I_B = -15\text{mA}$			-0.95	V
	$V_{BE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$			-1.3	V
Transition frequency	$f_T$	$V_{CE} = -10\text{V}, I_C = -20\text{mA}, f = 100\text{MHz}$	200			MHz
Collector capacitance	$C_C$	$V_{CB} = -5\text{V}, I_E = 0, f = 1\text{MHz}$			8.5	pF
Emitter capacitance	$C_E$	$V_{EB} = -0.5\text{V}, I_C = 0, f = 1\text{MHz}$			35	pF
Delay time	$t_d$	$V_{CC} = -29.5\text{V}, I_C = -150\text{mA}$ $V_{BB} = 3.5\text{V}, I_{B1} = -I_{B2} = -15\text{mA}$			15	nS
Rise time	$t_r$				30	nS
Storage time	$t_s$				300	nS
Fall time	$t_f$				50	nS