



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

SOT-223 Plastic-Encapsulate Transistors

PZT4401 TRANSISTOR (NPN)

FEATURES

Power dissipation

P_{CM} : 1 W ($T_{amb}=25^{\circ}C$)

Collector current

I_{CM} : 0.6 A

Collector-base voltage

$V_{(BR)CBO}$: 60 V

Operating and storage junction temperature range

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

SOT-223



1. BASE
2. COLLECTOR
3. EMITTER

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	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	
	$h_{FE(5)}$	$V_{CE}=2V, I_C=500mA$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=150mA, I_B=15mA$			0.4	V
	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$			0.75	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=150mA, I_B=15mA$			0.95	V
	$V_{BE(sat)}$	$I_C=500mA, I_B=50mA$			1.2	V
Transition frequency	f_T	$V_{CE}=10V, I_C=20mA, f=100MHz$	250			MHz
Collector capacitance	C_C	$V_{CB}=5V, I_E=0, f=1MHz$			8	pF
Emitter capacitance	C_E	$V_{EB}=0.5V, I_C=0, f=1MHz$			30	pF
Delay time	t_d	$V_{CC}=29.5V, I_C=150mA$ $V_{BB}=3.5V, I_{B1}=-I_{B2}=15mA$			15	nS
Rise time	t_r				20	nS
Storage time	t_s				200	nS
Fall time	t_f				60	nS