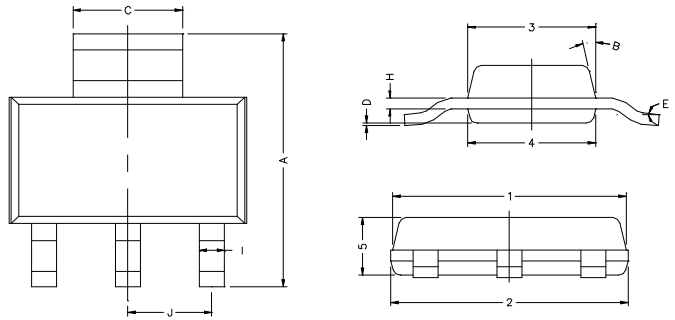
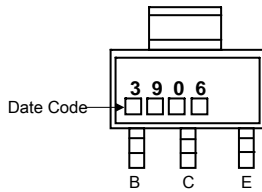


RoHS Compliant Product

**SOT-223**

## Description

The PZT3906 is designed for general purpose switching and amplifier applications.



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.70	7.30	B	13° TYP.	
C	2.90	3.10	J	2.30 REF.	
D	0.02	0.10	1	6.30	6.70
E	0°	10°	2	6.30	6.70
I	0.60	0.80	3	3.30	3.70
H	0.25	0.35	4	3.30	3.70
			5	1.40	1.80

## ABSOLUTE MAXIMUM RATINGS $T_{amb}=25^{\circ}\text{C}$ , unless otherwise specified

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	-40	V
$V_{CEO}$	Collector-Emitter Voltage	-40	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current	-200	mA
$P_D$	Total Power Dissipation	1.5	W
$T_J, T_{stg}$	Junction and Storage Temperature	-55~+150	°C

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

Parameter	Symbol	Min	Typ.	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	$BV_{CBO}$	-40	-	-	V	$I_C = -10 \mu\text{A}$
Collector-Emitter Breakdown Voltage	$*BV_{CEO}$	-40	-	-	V	$I_C = -1 \text{mA}$
Emitter-Base Breakdown Voltage	$BV_{EBO}$	-5	-	-	V	$I_E = -10 \mu\text{A}$
Collector-Base Cutoff Current	$I_{CES}$	-	-	-50	nA	$V_{CB} = -30\text{V}$
Emitter-Base Cutoff Current	$I_{EBO}$	-	-	-50	nA	$V_{EB} = -3\text{V}$
Collector Saturation Voltage	$*V_{CE(sat)1}$	-	-	-0.25	V	$I_C = -10 \text{mA}, I_B = -1 \text{mA}$
	$*V_{CE(sat)2}$	-	-0.2	-0.4		$I_C = -50 \text{mA}, I_B = -5 \text{mA}$
Base Saturation Voltage	$*V_{BE(sat)1}$	-0.65	-	-0.85	V	$I_C = -10 \text{mA}, I_B = -1 \text{mA}$
	$*V_{BE(sat)2}$	-	-0.84	-0.95	V	$I_C = -50 \text{mA}, I_B = -5 \text{mA}$
DC Current Gain	$*h_{FE1}$	60	-	-		$V_{CE} = -1 \text{V}, I_C = -0.1 \text{mA}$
	$*h_{FE2}$	80	-	-		$V_{CE} = -1 \text{V}, I_C = -1 \text{mA}$
	$*h_{FE3}$	100	-	300		$V_{CE} = -1 \text{V}, I_C = -10 \text{mA}$
	$*h_{FE4}$	60	-	-		$V_{CE} = -1 \text{V}, I_C = -50 \text{mA}$
	$*h_{FE5}$	30	-	-		$V_{CE} = -1 \text{V}, I_C = -100 \text{mA}$
Gain-Bandwidth Product	fT	250	-	-	MHz	$V_{CE} = -20 \text{V}, I_C = -10 \text{mA}, f = 100 \text{MHz}$
Output Capacitance	$C_{ob}$	-	-	4.5	pF	$V_{CB} = -5 \text{V}, f = 1 \text{MHz}$

\*Pulse test: Pulse width  $\leq 300 \mu\text{s}$ , Duty Cycle  $\leq 2\%$

**Characteristics Curve**

