

RoHS Compliant Product

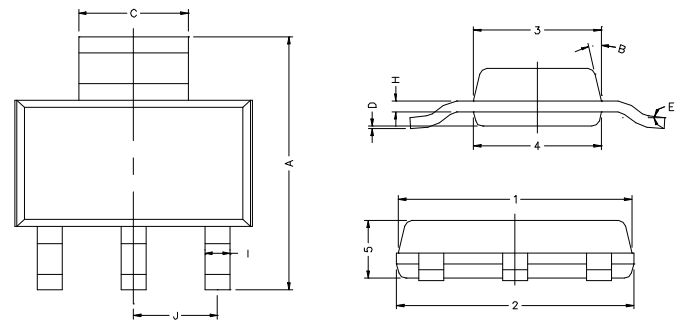
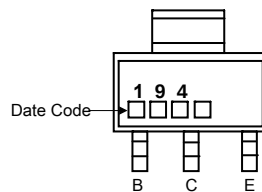
SOT-223

Description

The PZT194 is designed for medium power amplifier applications.

Features

- * 1 Amps Continuous Current
- * 60 Volt V_{CEO}
- * Complementary To PZT195



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

MAXIMUM RATINGS* ($T_{amb}=25^{\circ}\text{C}$, unless otherwise specified)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current (DC)	1	A
	Collector Current (Pulse)	2	
I_B	Base Current	200	mA
P_D	Total Power Dissipation	2	W
T_J, T_{stg}	Junction and Storage Temperature	-55~+150	$^{\circ}\text{C}$

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}	80	-	-	V	$I_C = 100\mu\text{A}, I_E = 0$
Collector-Emitter Breakdown Voltage	$*BV_{CEO}$	60	-	-	V	$I_C = 10\text{mA}, I_B = 0$
Emitter-Base Breakdown Voltage	BV_{EBO}	5	-	-	V	$I_E = 100\mu\text{A}, I_C = 0$
Collector-Base Cutoff Current	I_{CBO}	-	-	100	nA	$V_{CB} = 60\text{V}, I_E = 0$
Emitter-Base Cutoff Current	I_{EBO}	-	-	100	nA	$V_{EB} = 4\text{V}, I_C = 0$
Collector-Base Cutoff Current	I_{CES}	-	-	100	nA	$V_{CES} = 60\text{V}$
Collector Saturation Voltage	$*V_{CE(sat)1}$	-	-	0.25	V	$I_C = 500\text{mA}, I_B = 50\text{mA}$
	$*V_{CE(sat)2}$	-	-	0.5		$I_C = 1\text{A}, I_B = 100\text{mA}$
Base Saturation Voltage	$*V_{BE(sat)}$	-	-	1.1	V	$I_C = 1\text{A}, I_B = 100\text{mA}$
Base-Emitter Voltage	$*V_{BE(on)}$	-	-	1.0	V	$I_C = 1\text{A}, V_{CE} = 5\text{V}$
DC Current Gain	$*h_{FE1}$	100	-	-		$V_{CE} = 5\text{V}, I_C = 1\text{mA}$
	$*h_{FE2}$	100	-	300		$V_{CE} = 5\text{V}, I_C = 500\text{mA}$
	$*h_{FE3}$	80	-	-		$V_{CE} = 5\text{V}, I_C = 1\text{A}$
	$*h_{FE4}$	30	-	-		$V_{CE} = 5\text{V}, I_C = 2\text{A}$
Gain-Bandwidth Product	f_T	150	-	-	MHz	$V_{CE} = 10\text{V}, I_C = 50\text{mA}, f = 100\text{MHz}$
Output Capacitance	C_{ob}	-	-	10	pF	$V_{CB} = 10\text{V}, f = 1\text{MHz}, I_E = 0$

*Measured under pulse condition. Pulse width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$

Characteristics Curve

