Elektronische Bauelemente

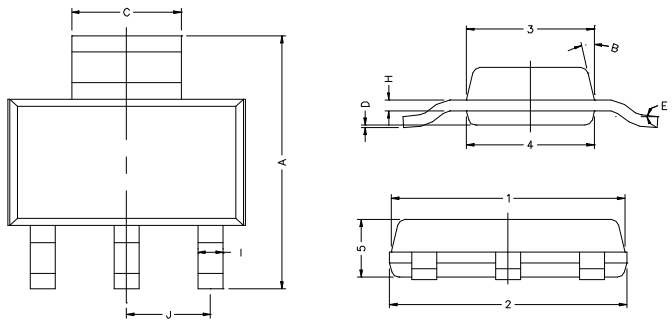
PZT194

NPN Transistor

Silicon Planar Medium Power Transistor

RoHS Compliant Product

SOT-223

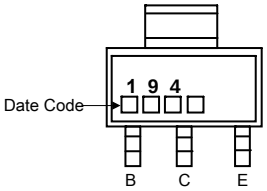


Description

The PZT194 is designed for medium power amplifier applications.

Features

* 1 Amps Continous 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°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	°C

ELECTRICAL CHARACTERISTICS Tamb=25°C unless otherwise specified

Parameter	Symbol	Min	Typ.	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	BV_{CBO}	80	-	-	V	I_C= 100μA, I_E=0
Collector-Emitter Breakdown Voltage	*BV_{CEO}	60	-	-	V	I_C= 10mA, I_B=0
Emitter-Base Breakdown Voltage	BV_{EBO}	5	-	-	V	I_E= 100μA, I_C=0
Collector-Base Cutoff Current	I_{CBO}	-	-	100	nA	V_{CB}= 60V, I_E=0
Emitter-Base Cutoff Current	I_{EBO}	-	-	100	nA	V_{EB}=4V,I_C=0
Collector-Base Cutoff Current	I_{CES}	-	-	100	nA	V_{CES} = 60V
Collector Saturation Voltage	*V_{CE}(sat)1	-	-	0.25	V	I_C=500mA,I_B=50 mA
	*V_{CE}(sat)2	-	-	0.5		I_C=1A,I_B=100mA
Base Saturation Voltage	*V_{BE}(sat)	-	-	1.1	V	I_C=1A,I_B=100mA
Base-Emitter Voltage	*V_{BE}(on)	-	-	1.0	V	I_C=1A,V_{CE}=5V
DC Current Gain	*h_{FE}1	100	-	-		V_{CE}= 5V, I_C=1mA
	*h_{FE}2	100	-	300		V_{CE}= 5V, I_C=500mA
	*h_{FE}3	80	-	-		V_{CE}= 5V, I_C=1A
	*h_{FE}4	30	-	-		V_{CE}= 5V, I_C=2A
Gain-Bandwidth Product	fT	150	-	-	MHz	V_{CE}= 10V, I_C= 50mA, f=100MHz
Output Capacitance	Cob	-	-	10	pF	V_{CB}= 10V, f=1MHz,I_E=0

*Measured under pulse condition. Pulse width≦300μs, Duty Cycle≦2%

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Characteristics Curve