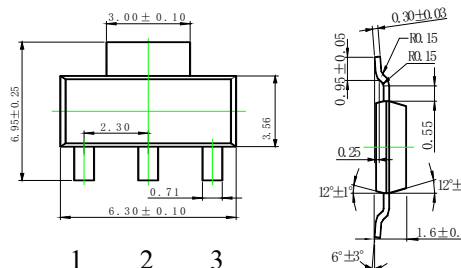


RoHS Compliant Product

### Features

- \* -60 Voltage  $V_{CE0}$ .
- \* 1 Amps continuous current.
- \* Complementary to PZT194

### SOT-223

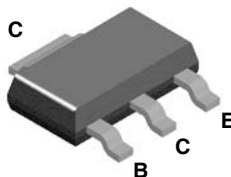


1 2 3

1. BASE
2. COLLECTOR
3. EMITTER

### Mechanical Data

- Case:** SOT-223 Plastic Package  
**Weight:** approx. 0.021g  
**Marking Code:** 195



### Maximum Ratings and Thermal Characteristics

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

Parameter	Symbol	Value	Unit
Junction Temperature	$T_j$	+150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$
Collector-Base Voltage	$V_{CBO}$	-80	V
Collector-Emitter Voltage	$V_{CEO}$	-60	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current (DC)	$I_C$	-1	A
Collector Current (Pulse)	$I_C$	-0.2	A
Total Power Dissipation	PD	2.0	W

**Notes:** Device on alumina substrate.

### Electrical Characteristics ( $T_J = 25^\circ\text{C}$ unless otherwise noted)

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-Emmitter Breakdown Voltage	$I_{CBO}$	-	-	-100	nA	$V_{CB} = -60\text{V}$ , $I_E = 0$
Collector-Base Cutoff Current	$I_{CES}$	-	-	-100	nA	$V_{CES} = -60\text{V}$
Emitter-Base Cutoff Current	$I_{EBO}$	-	-	-100	nA	$V_{EB} = -4\text{V}$ , $I_C = 0$
Collector Saturation Voltage 1	* $V_{CE(sat)1}$	-	-	-0.3	V	$I_C = -500\text{mA}$ , $I_B = -50\text{mA}$
Collector Saturation Voltage 2	* $V_{CE(sat)2}$	-	-	-0.6	V	$I_C = -1\text{A}$ , $I_B = -100\text{mA}$
Base Saturation Voltage	* $V_{BE(sat)}$	-	-	-1.2	V	$I_C = -1\text{A}$ , $I_B = -100\text{mA}$
Base-Emitter Voltage	* $V_{BE(on)}$	-	-	-1.0	V	$V_{CE} = -5\text{V}$ , $I_C = -1\text{A}$
DC Current Gain 1	* $h_{FE1}$	100	-	-	-	$V_{CE} = -5\text{V}$ , $I_C = 1\text{mA}$
DC Current Gain 2	* $h_{FE2}$	100	-	300	-	$V_{CE} = -5\text{V}$ , $I_C = -500\text{mA}$
DC Current Gain 3	* $h_{FE3}$	80	-	-	-	$V_{CE} = -5\text{V}$ , $I_C = -1\text{A}$
DC Current Gain 4	* $h_{FE4}$	15	-	-	-	$V_{CE} = -5\text{V}$ , $I_C = -2\text{A}$
Gain-Bandwidth Product	fT	150	-	-	MHz	$V_{CE} = -10\text{V}$ , $I_C = -50\text{mA}$ , $f = 100\text{MHz}$
Output Capacitance	Cob	-	-	10	pF	$V_{CB} = -10\text{V}$ , $I_E = 0$ , $f = 1\text{MHz}$

**Characteristics Curve**

