



PZT751

PNP SILICON TRANSISTOR

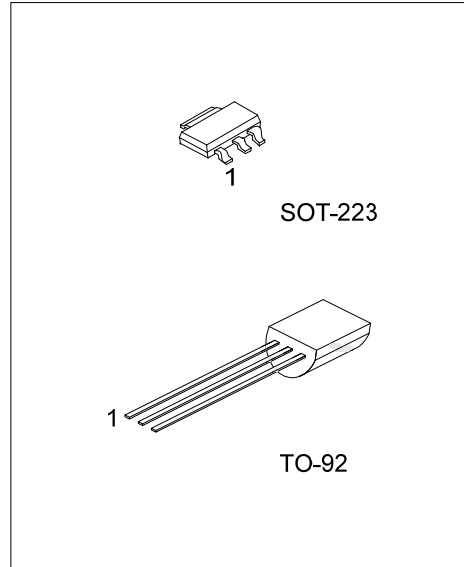
PNP CURRENT DRIVER TRANSISTOR

■ DESCRIPTION

The UTC **PZT751** is designed for power amplifier, regulator, and switching circuits where speed is important.

■ FEATURES

- * Collector-Emitter voltage:
 $V_{CE0} = -80V$
- * Collector Dissipation:
 $P_{D(MAX)} = 1.2W$
- * Low collector-Emitter saturation voltage
- * Complementary of NPN PZT651



■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
PZT751L-AA3-R	PZT751G-AA3-R	SOT-223	B	C	E	Tape Reel
PZT751L-T92-B	PZT751G-T92-B	TO-92	E	B	C	Tape Box
PZT751L-T92-K	PZT751G-T92-K	TO-92	E	B	C	Bulk

Note: Pin Assignment: E: Emitter C: Case B: Base

<p>PZT751G-AA3-R</p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>	<p>(1) R: Tape Reel, B: Tape Box, K: Bulk (2) AA3: SOT-223, T92: TO-92 (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ MARKING

SOT-223	TO-92
<p>PZT751 □ □ □ □ □ □ 1</p> <p>L: Lead Free G: Halogen Free Date Code</p>	<p>UTC PZT751 □ □ □ □ □ □ 1</p> <p>L: Lead Free G: Halogen Free Date Code</p>

■ ABSOLUTE MAXIMUM RATINGS (NOTE 2, 3)

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at $T_A=25^\circ\text{C}$, unless otherwise specified

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	-80	V
Collector-Emitter Voltage		V_{CEO}	-60	V
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Power Dissipation (Note 4)	SOT-223	P_C	1.2	W
	TO-92		0.6	W
Collector Current		I_C	-4	A
Junction Temperature		T_J	+150	$^\circ\text{C}$
Storage Temperature		T_{STG}	-40 ~ +150	$^\circ\text{C}$

Notes: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

2. These ratings are based on a maximum junction temperature of 150°C .

3. These are steady-state limits.

4. Device is mounted on FR-4 PCB 76mm×114mm×1.57mm (3.0 inch x 4.5 inch x 0.062 inch) with minimum land pattern size.

■ THERMAL DATA ($T_A=25^\circ\text{C}$, unless otherwise specified)

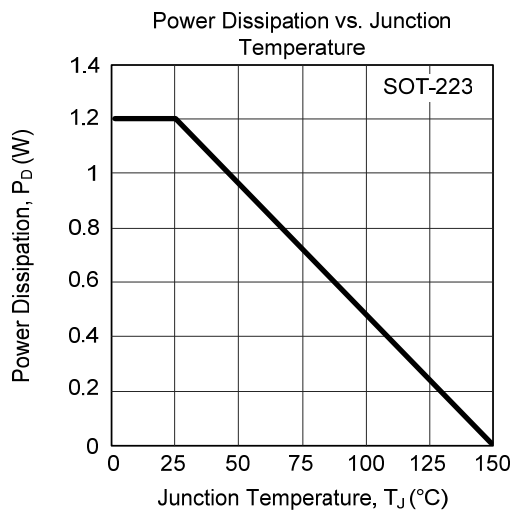
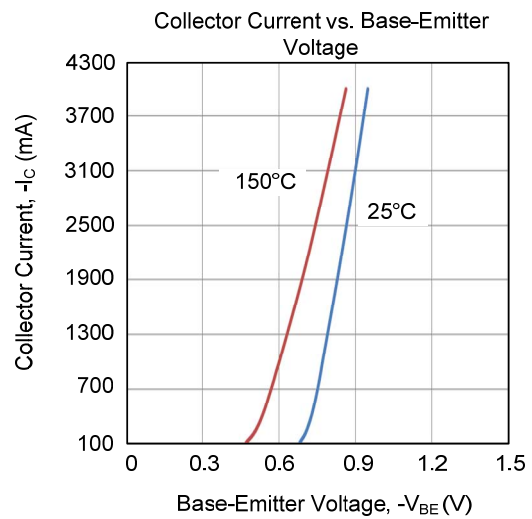
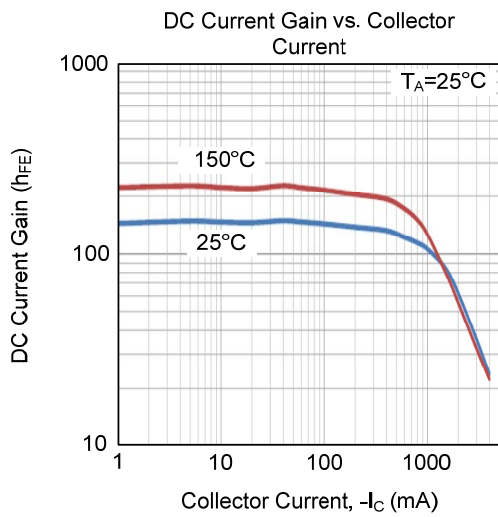
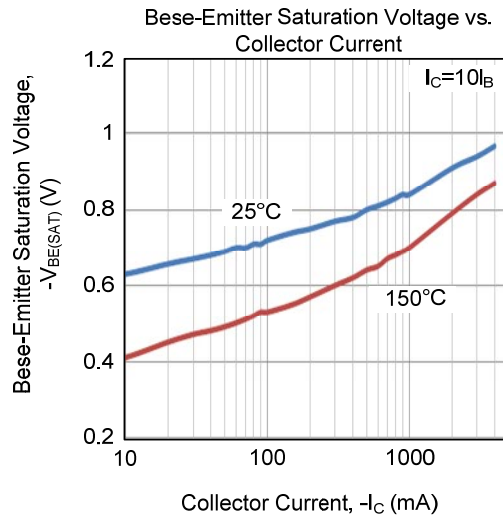
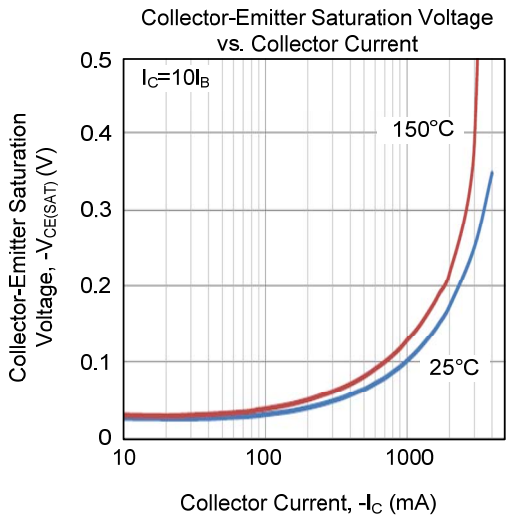
PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient	SOT-223	θ_{JA}	103	$^\circ\text{C/W}$
	TO-92		208	$^\circ\text{C/W}$

■ ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=-100\mu\text{A}, I_E=0$	-80			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=-10\text{mA}, I_B=0$	-60			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=-10\mu\text{A}, I_C=0$	-5			V
Collector Cut-off Current	I_{CBO}	$V_{CB}=-80\text{V}, I_E=0$			-100	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=-4\text{V}, I_C=0$			0.1	μA
DC Current Gain (Note)	h_{FE}	$V_{CE}=-2\text{V}, I_C=-50\text{mA}$	75			
		$V_{CE}=-2\text{V}, I_C=-500\text{mA}$	75			
		$V_{CE}=-2\text{V}, I_C=-1\text{A}$	75			
		$V_{CE}=-2\text{V}, I_C=-2\text{A}$	40			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=-1\text{A}, I_B=-100\text{mA}$			-0.3	V
		$I_C=-2\text{A}, I_B=-200\text{mA}$			-0.5	V
Base-Emitter Saturation Voltage (Note)	$V_{BE(SAT)}$	$I_C=-1\text{A}, I_B=-100\text{mA}$			-1.2	V
Base Emitter On Voltage (Note)	$V_{BE(ON)}$	$I_C=-1\text{A}, V_{CE}=-2\text{V}$			-1	V
Current Gain Bandwidth Product	f_T	$I_C=-50\text{mA}, V_{CE}=-5\text{V}, f=100\text{MHZ}$	75			MHZ

Note: Pulse test: Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$.

TYPICAL CHARACTERISTICS



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