



## PZTA92/93

## PNP SILICON TRANSISTOR

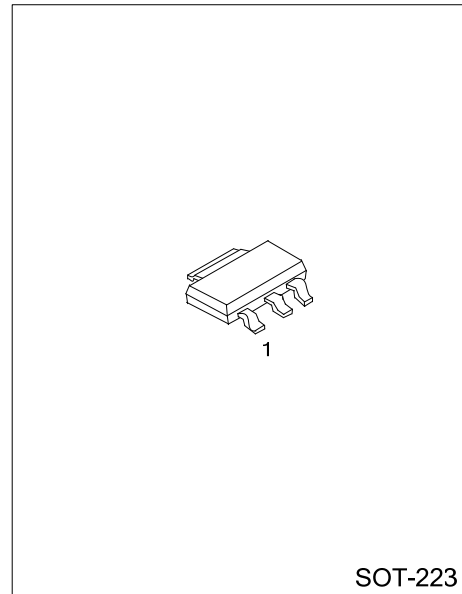
### HIGH VOLTAGE TRANSISTOR

#### DESCRIPTION

The UTC **PZTA92/93** are high voltage PNP transistors, designed for telephone signal switching and for high voltage amplifier.

#### FEATURES

- \* Collector-emitter voltage:  $V_{CE0}=-300V$  (UTC PZTA92)  
 $V_{CE0}=-200V$  (UTC PZTA93)
- \* Complement to UTC PZTA42/43
- \* Collector power dissipation:  $P_{C(MAX)}=1W$



Lead-free: PZTA92L / PZTA93L  
Halogen-free: PZTA92G / PZTA93G

#### ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free	Halogen Free		1	2	3	
PZTA92-AA3-R	PZTA92L-AA3-R	PZTA92G-AA3-R	SOT-223	B	C	E	Tape Reel
PZTA93-AA3-R	PZTA93L-AA3-R	PZTA93G-AA3-R	SOT-223	B	C	E	Tape Reel

<p>PZTA92L-AA3-R</p> <p>(1) Packing Type (2) Package Type (3) Lead Plating</p>	<p>(1) R: Tape Reel (2) AA3: SOT-223 (3) G: Halogen Free, L: Lead Free, Blank: Pb/Sn</p>
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■ ABSOLUTE MAXIMUM RATING (Ta=25°C)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage	PZTA92	V <sub>CBO</sub>	-300	V
	PZTA93		-200	V
Collector-Emitter Voltage	PZTA92	V <sub>CEO</sub>	-300	V
	PZTA93		-200	V
Emitter-Base Voltage		V <sub>EBO</sub>	-5	V
Collector Current		I <sub>C</sub>	-500	mA
Collector Power Dissipation		P <sub>C</sub>	1	W
Junction Temperature		T <sub>J</sub>	150	°C
Storage Temperature		T <sub>STG</sub>	-55 ~ +150	°C

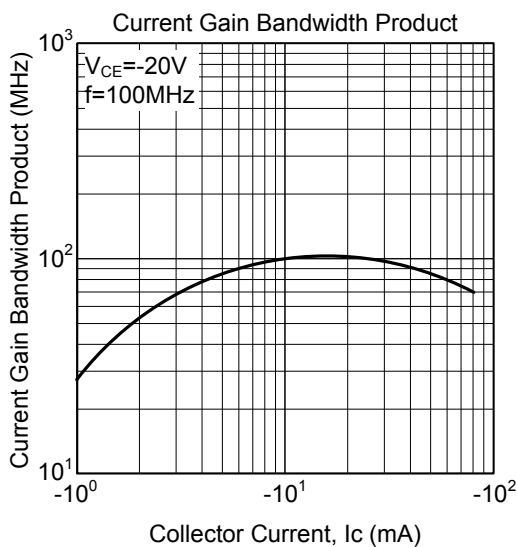
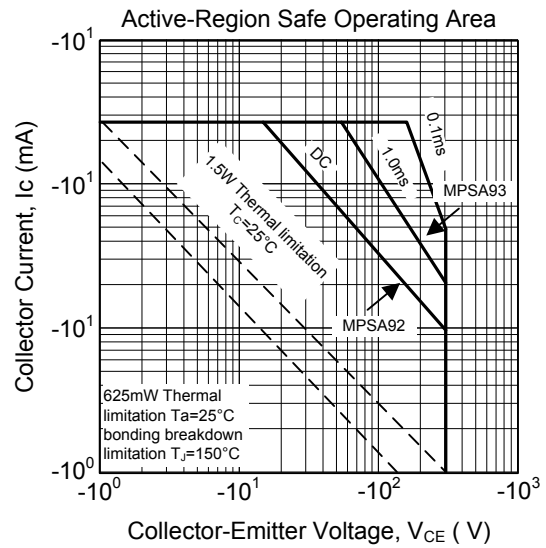
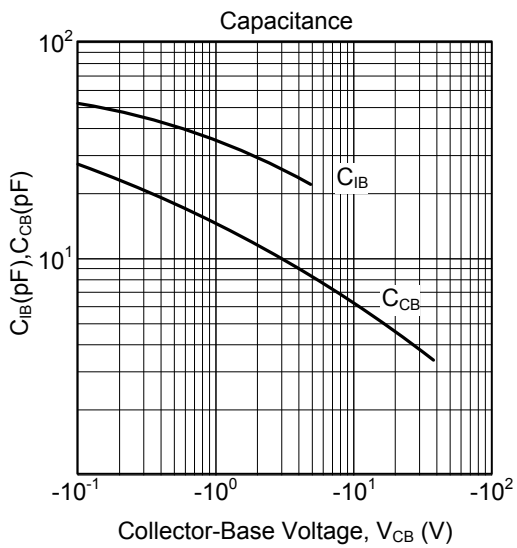
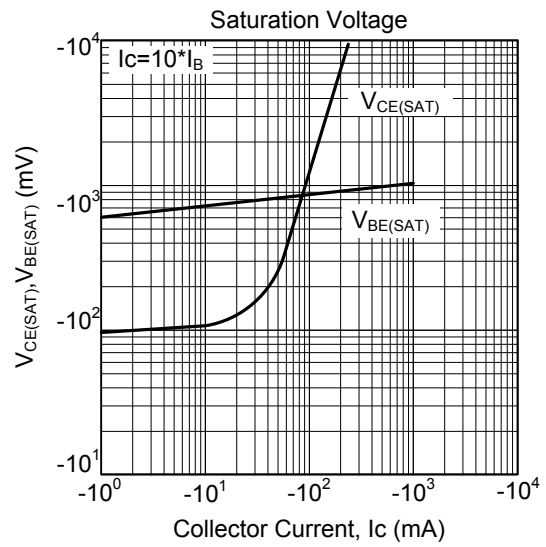
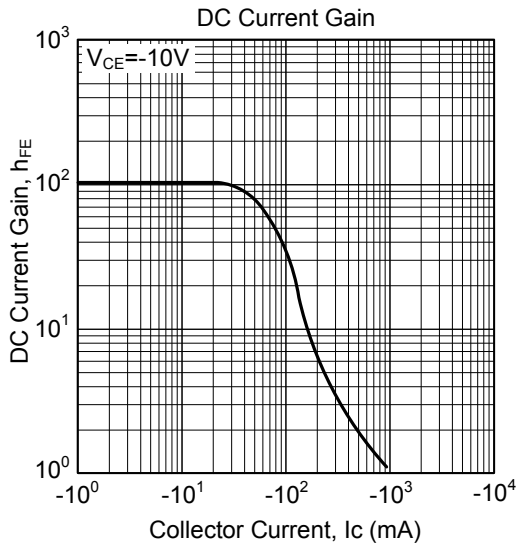
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV <sub>CBO</sub>	I <sub>C</sub> = -100μA, I <sub>E</sub> = 0	PZTA92	-300		V
			PZTA93	-200		V
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	I <sub>C</sub> = -1mA, I <sub>B</sub> = 0	PZTA92	-300		V
			PZTA93	-200		V
Emitter-Base Breakdown Voltage	BV <sub>EBO</sub>	I <sub>E</sub> = -100μA, I <sub>C</sub> = 0	-5			V
Collector Cut-Off Current	I <sub>CBO</sub>	V <sub>CB</sub> = -200V, I <sub>E</sub> = 0	PZTA92		-0.25	μA
		V <sub>CB</sub> = -160V, I <sub>E</sub> = 0	PZTA93		-0.25	μA
Emitter Cut-Off Current	I <sub>EBO</sub>	V <sub>EB</sub> = -3V, I <sub>C</sub> = 0			-0.10	μA
DC Current Gain (Note)	h <sub>FE</sub>	V <sub>CE</sub> = -10V, I <sub>C</sub> = -1mA	60			
		V <sub>CE</sub> = -10V, I <sub>C</sub> = -10mA	80			
		V <sub>CE</sub> = -10V, I <sub>C</sub> = -30mA	80			
Collector-Emitter Saturation Voltage	V <sub>CE(SAT)</sub>	I <sub>C</sub> = -20mA, I <sub>B</sub> = -2mA			-0.5	V
Base-Emitter Saturation Voltage	V <sub>BE(SAT)</sub>	I <sub>C</sub> = -20mA, I <sub>B</sub> = -2mA			-0.90	V
Current Gain Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> = -20V, I <sub>C</sub> = -10mA, f = 100MHz	50			MHz
Collector Base Capacitance	C <sub>cb</sub>	V <sub>CB</sub> = -20V, I <sub>E</sub> = 0, f = 1MHz	PZTA92		6	pF
			PZTA93		8	pF

Note: Pulse test: PW < 300μs, Duty Cycle < 2%, V<sub>CE(SAT)</sub> < 200mV (Class SIN)

## TYPICAL CHARACTERISTICS



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