



## PZTA42/43

## NPN SILICON TRANSISTOR

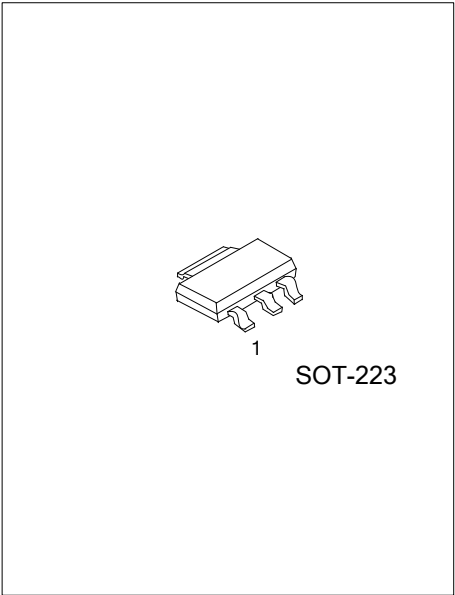
### HIGH VOLTAGE TRANSISTOR

#### DESCRIPTION

The UTC **PZTA42/43** are high voltage transistors, designed for telephone switch and high voltage switch.

#### FEATURES

- \* Collector-emitter voltage:  $V_{CE0}=300V$  (UTC PZTA42)  
 $V_{CE0}=200V$  (UTC PZTA43)
- \* High current gain
- \* Complement to UTC PZTA92/93
- \* Collector power dissipation:  $P_{C(MAX)}=1W$



#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
PZTA42L-AA3-R	PZTA42G-AA3-R	SOT-223	B	C	E	Tape Reel
PZTA43L-AA3-R	PZTA43G-AA3-R	SOT-223	B	C	E	Tape Reel

<p>PZTA42L-AA3-R</p> <p>(1) Packing Type (2) Package Type (3) Lead Free</p>	<p>(1) R: Tape Reel (2) AA3: SOT-223 (3) G: Halogen Free, L: Lead Free</p>
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### ■ ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C)

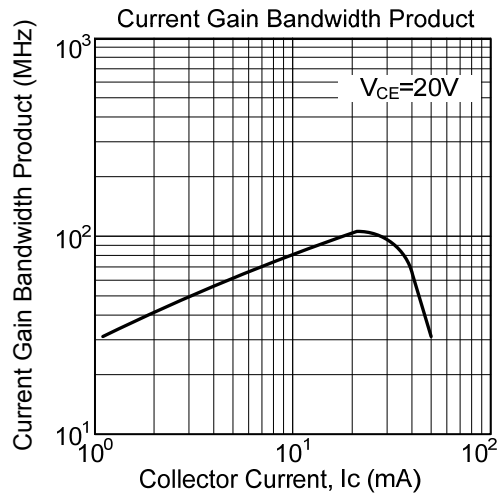
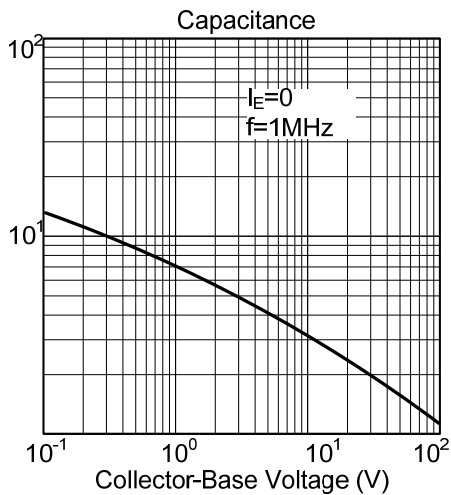
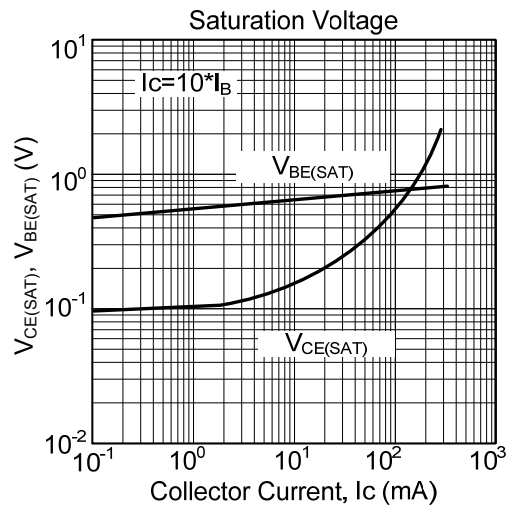
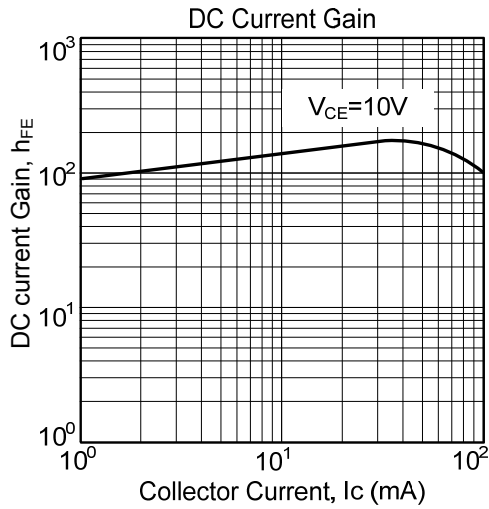
PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	PZTA42	300	V
	PZTA43	200	V
Collector-Emitter Voltage	PZTA42	300	V
	PZTA43	200	V
Emitter-Base Voltage	V <sub>EBO</sub>	6	V
Collector Current	I <sub>C</sub>	500	mA
Collector Power Dissipation	P <sub>C</sub>	1	W
Junction Temperature	T <sub>J</sub>	150	°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 (T<sub>A</sub>=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	PZTA42	300		V
			PZTA43	200		V
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	I <sub>C</sub> = 1mA, I <sub>B</sub> = 0	PZTA42	300		V
			PZTA43	200		V
Emitter-Base Breakdown Voltage	BV <sub>EBO</sub>	I <sub>E</sub> = 100μA, I <sub>C</sub> = 0	6		V	
Collector Cut-Off Current	I <sub>CBO</sub>	V <sub>CB</sub> = 200V, I <sub>E</sub> = 0	PZTA42		100	nA
		V <sub>CB</sub> = 160V, I <sub>E</sub> = 0	PZTA43		100	nA
Emitter Cut-Off Current	I <sub>EBO</sub>	V <sub>BE</sub> = 6V, I <sub>C</sub> = 0	PZTA42		100	nA
		V <sub>BE</sub> = 4V, I <sub>C</sub> = 0	PZTA43		100	nA
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 1mA	80			
		V <sub>CE</sub> = 10V, I <sub>C</sub> = 10mA	80		300	
		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			0.2	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	PZTA42		3	pF
			PZTA43		4	pF

## TYPICAL CHARACTERISTICS



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