



## PZTA42/43

NPN SILICON TRANSISTOR

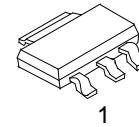
### HIGH VOLTAGE TRANSISTOR

#### DESCRIPTION

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

#### FEATURES

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



SOT-223

#### 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

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

<p>PZTA42G-AA3-R</p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>	<p>(1) R: Tape Reel (2) AA3: SOT-223 (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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#### MARKING

PZTA42	PZTA43
<p>L: Lead Free G: Halogen Free Date Code</p>	<p>L: Lead Free G: Halogen Free Date Code</p>

# PZTA42/43

## NPN SILICON TRANSISTOR

### ■ ABSOLUTE MAXIMUM RATINGS ( $T_A=25^{\circ}\text{C}$ , unless otherwise specified)

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	$V_{EBO}$	6	V
Collector Current	$I_C$	500	mA
Collector Power Dissipation	$P_C$	1	W
Junction Temperature	$T_J$	150	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-55 ~ +150	$^{\circ}\text{C}$

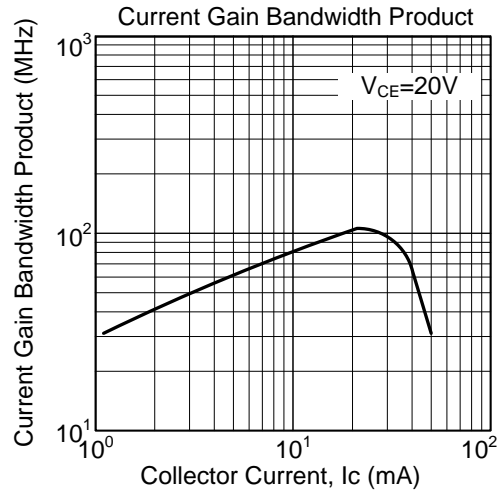
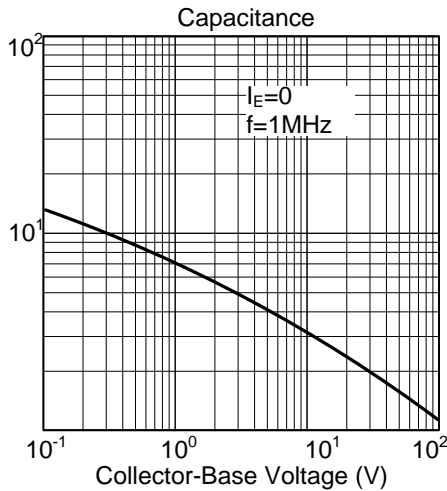
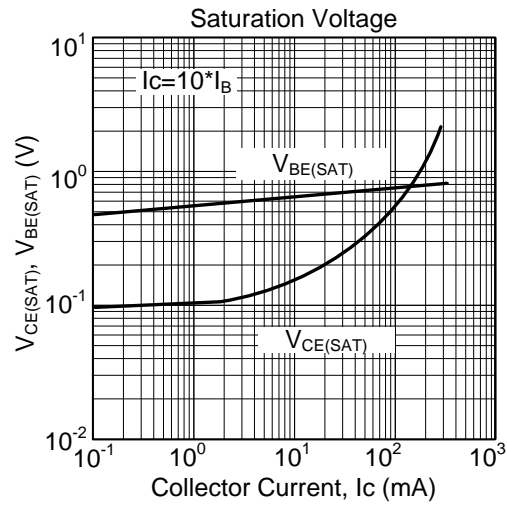
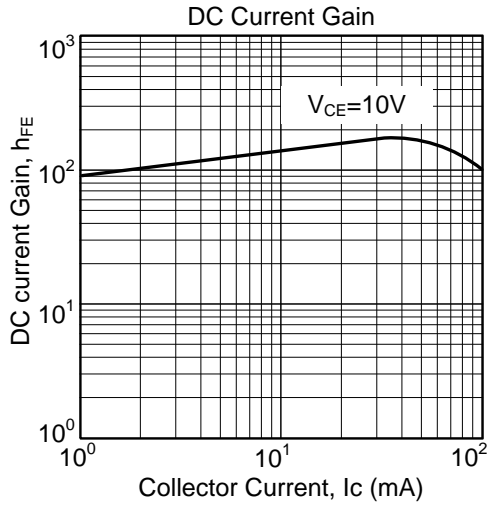
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

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

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C=100\mu\text{A}, I_E=0$	PZTA42	300		V
			PZTA43	200		V
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_C=1\text{mA}, I_B=0$	PZTA42	300		V
			PZTA43	200		V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_E=100\mu\text{A}, I_C=0$	6		V	
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=200\text{V}, I_E=0$	PZTA42		100	nA
		$V_{CB}=160\text{V}, I_E=0$	PZTA43		100	nA
Emitter Cut-Off Current	$I_{EBO}$	$V_{BE}=6\text{V}, I_C=0$	PZTA42		100	nA
		$V_{BE}=4\text{V}, I_C=0$	PZTA43		100	nA
DC Current Gain	$h_{FE}$	$V_{CE}=10\text{V}, I_C=1\text{mA}$	80			
		$V_{CE}=10\text{V}, I_C=10\text{mA}$	80		300	
		$V_{CE}=10\text{V}, I_C=30\text{mA}$	80			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=20\text{mA}, I_B=2\text{mA}$			0.2	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C=20\text{mA}, I_B=2\text{mA}$			0.90	V
Current Gain Bandwidth Product	$f_T$	$V_{CE}=20\text{V}, I_C=10\text{mA}, f=100\text{MHz}$	50			MHz
Collector Base Capacitance	$C_{CB}$	$V_{CB}=20\text{V}, I_E=0, f=1\text{MHz}$	PZTA42		3	pF
			PZTA43		4	pF

## ■ TYPICAL CHARACTERISTICS



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