



PZTA42/43

NPN SILICON TRANSISTOR

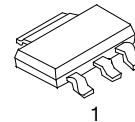
HIGH VOLTAGE TRANSISTOR

DESCRIPTION

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

FEATURES

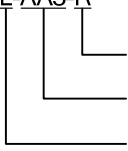
- * Collector-emitter voltage: $V_{CE0}=300V$ (UTC PZTA42)
 $V_{CE0}=200V$ (UTC PZTA43)
- * High current gain
- * Complement to UTC PZTA92/93
- * Collector power dissipation: $P_{C(MAX)}=1W$



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

PZTA42L-AA3-R  (1) Packing Type (2) Package Type (3) Lead Free	(1) R: Tape Reel (2) AA3: SOT-223 (3) G: Halogen Free, L: Lead Free
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■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

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_{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	$^{\circ}\text{C}$

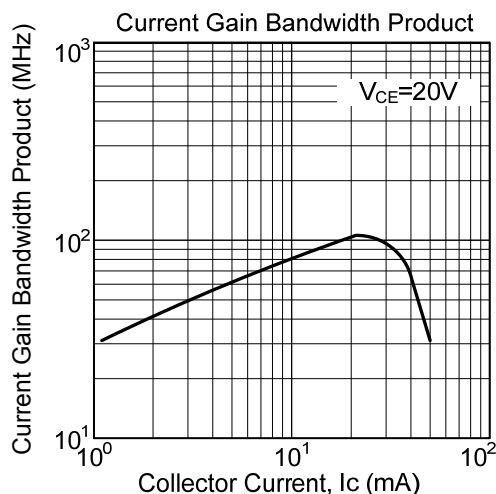
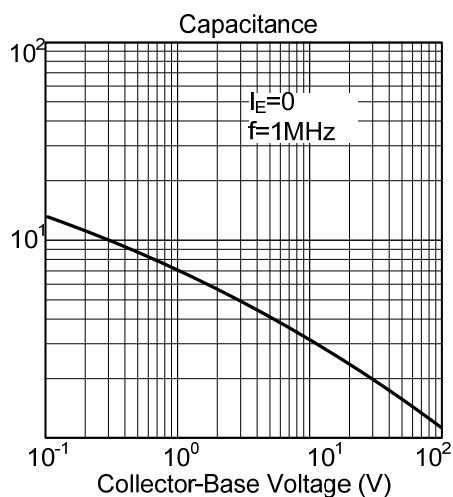
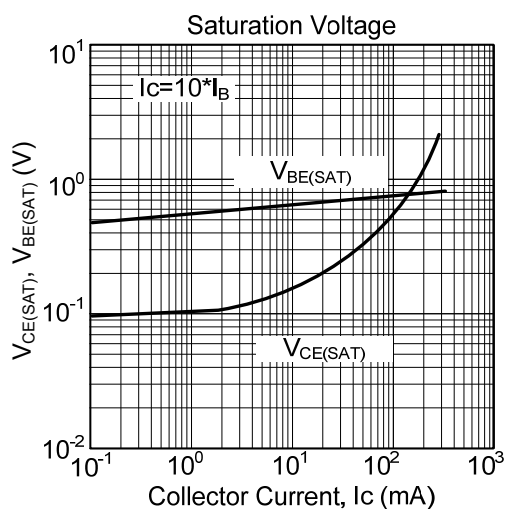
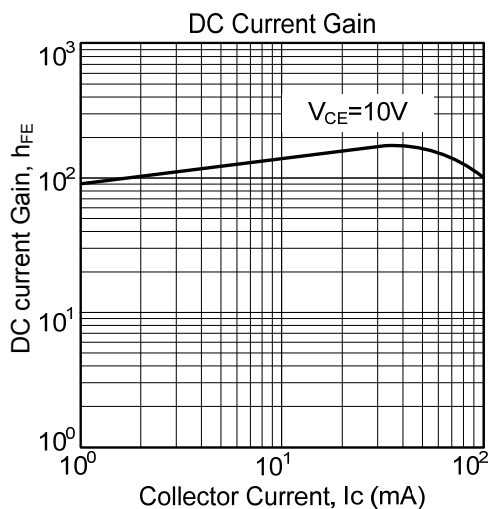
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

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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