



PZTA42/43

NPN SILICON TRANSISTOR

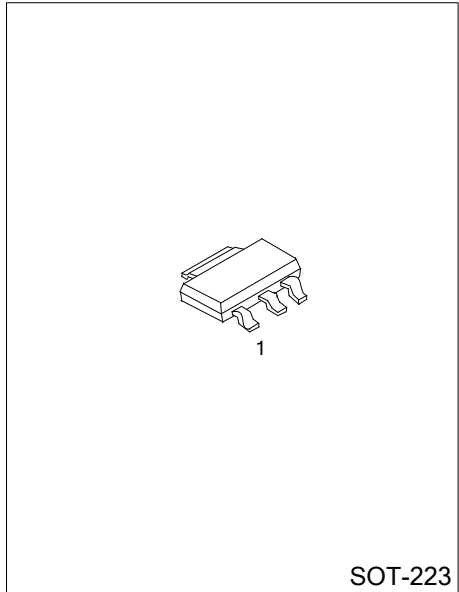
HIGH VOLTAGE TRANSISTOR

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: $P_{C(MAX)}=1W$



Lead-free: PZTA42L / PZTA43L
Halogen-free: PZTA42G / PZTA43G

ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free	Halogen Free		1	2	3	
PZTA42-AA3-R	PZTA42L-AA3-R	PZTA42G-AA3-R	SOT-223	B	C	E	Tape Reel
PZTA43-AA3-R	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 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 RATINGS (Ta=25°C)

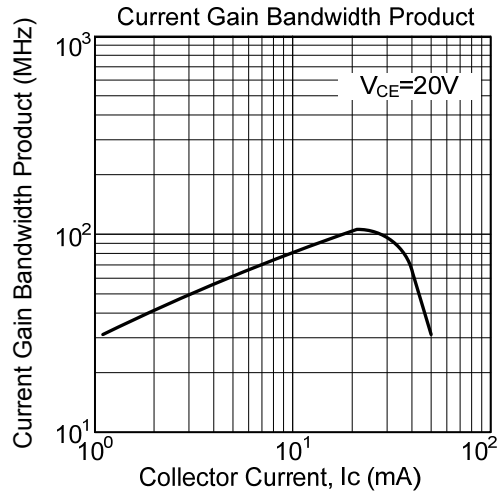
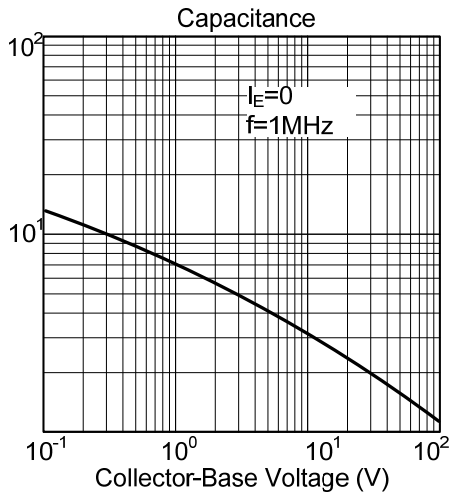
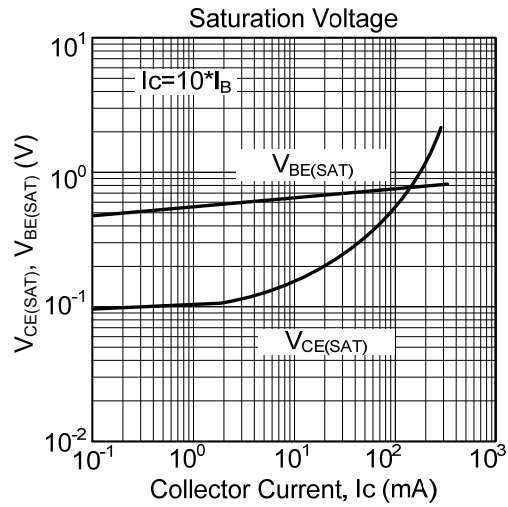
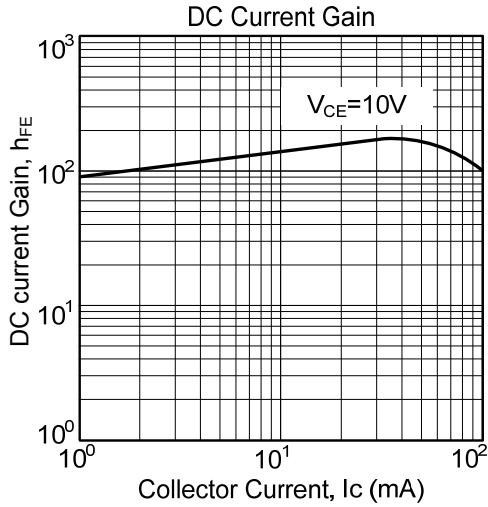
PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	PZTA42	300	V
	PZTA43	200	V
Collector-Emitter Voltage	PZTA42	300	V
	PZTA43	200	V
Emitter-Base Voltage	V _{EBO}	6	V
Collector Current	I _C	500	mA
Collector Power Dissipation	P _C	1	W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-55 ~ +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 _{CBO}	I _C = 100μA, I _E = 0	PZTA42	300		V
			PZTA43	200		V
Collector-Emitter Breakdown Voltage	BV _{CEO}	I _C = 1mA, I _B = 0	PZTA42	300		V
			PZTA43	200		V
Emitter-Base Breakdown Voltage	BV _{EBO}	I _E = 100μA, I _C = 0	6			V
Collector Cut-Off Current	I _{CBO}	V _{CB} = 200V, I _E = 0	PZTA42		100	nA
		V _{CB} = 160V, I _E = 0	PZTA43		100	nA
Emitter Cut-Off Current	I _{EBO}	V _{BE} = 6V, I _C = 0	PZTA42		100	nA
		V _{BE} = 4V, I _C = 0	PZTA43		100	nA
DC Current Gain	h _{FE}	V _{CE} = 10V, I _C = 1mA	80			
		V _{CE} = 10V, I _C = 10mA	80		300	
		V _{CE} = 10V, I _C = 30mA	80			
Collector-Emitter Saturation Voltage	V _{CE(SAT)}	I _C = 20mA, I _B = 2mA			0.2	V
Base-Emitter Saturation Voltage	V _{BE(SAT)}	I _C = 20mA, I _B = 2mA			0.90	V
Current Gain Bandwidth Product	f _T	V _{CE} = 20V, I _C = 10mA, f = 100MHz	50			MHz
Collector Base Capacitance	C _{cb}	V _{CB} = 20V, I _E = 0, f = 1MHz	PZTA42		3	pF
			PZTA43		4	pF

TYPICAL CHARACTERISTICS



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