

# UTCPZTA92/93 PNP EPITAXIAL SILICON TRANSISTOR

## HIGH VOLTAGE PNP TRANSISTOR

### DESCRIPTION

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

### FEATURES

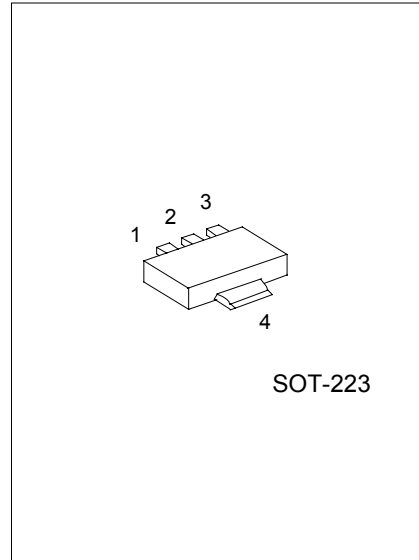
\* High Collector-Emitter voltage:

V<sub>CEO</sub>=-300V(UTC PZTA92)

V<sub>CEO</sub>=-200V(UTC PZTA93)

\*Collector Power Dissipation:

P<sub>c</sub>(max)=1000mW



1:EMITTER 2,4:COLLECTOR 3:BASE

### ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage			V
UTC PZTA92	V <sub>CBO</sub>	-300	
UTC PZTA93		-200	
Collector-Emitter Voltage			V
UTC PZTA92	V <sub>CEO</sub>	-300	
UTC PZTA93		-200	
Emitter-Base Voltage	V <sub>EB0</sub>	-5	V
Collector Power Dissipation	P <sub>c</sub>	1000	mW
Collector Current	I <sub>c</sub>	-500	mA
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>STG</sub>	-55 ~ +150	°C

# UTCPZTA92/93 PNP EPITAXIAL SILICON TRANSISTOR

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage UTC PZTA92 UTC PZTA93	BVCBO	Ic=-100μA, IE=0	-300 -200			V
Collector-Emitter Breakdown Voltage UTC PZTA92 UTC PZTA93	BVCEO	Ic=-1mA, IB=0	-300 -200			V
Emitter-Base Breakdown Voltage	BVEBO	IE=-100μA, Ic=0	-5			V
Collector Cut-Off Current UTC PZTA92 UTC PZTA93	ICBO	VCB=-200V, IE=0 VCB=-160V, IE=0			-0.25 -0.25	μA
Emitter Cut-Off Current	IEBO	VEB=-3V, Ic=0			-0.10	μA
DC Current Gain(note)	hFE	VCE=-10V, Ic=-1mA VCE=-10V, Ic=-10mA VCE=-10V, Ic=-30mA	60 80 80			
Collector-Emitter Saturation Voltage	VCE(sat)1	Ic=-20mA, IB=-2mA			-0.5	V
Base-Emitter Saturation Voltage	VBE(sat)1	Ic=-20mA, IB=-2mA			-0.90	V
Current Gain Bandwidth Product	fT	VCE=-20V, Ic=-10mA, f=100MHz	50			MHz
Collector Base Capacitance UTC PZTA92 UTC PZTA93	Ccb	VCB=-20V, IE=0 f=1MHz			6 8	pF

Note: Pulse test: PW<300μs, Duty Cycle<2%, VCE(SAT)1<200mV(Class SIN)

# UTCPZTA92/93 PNP EPITAXIAL SILICON TRANSISTOR

## TYPICAL PERFORMANCE CHARACTERISTICS

Fig.1 DC Current Gain

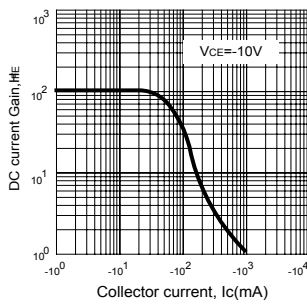


Fig.2 Saturation Voltage

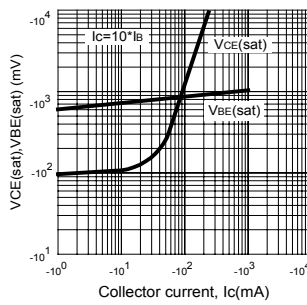


Fig.3 Capacitance

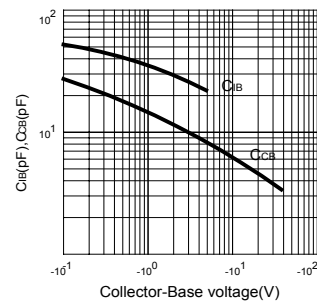


Fig.4 Active-region safe operating area

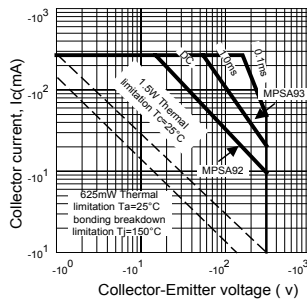
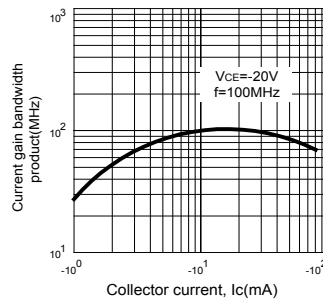


Fig.5 Current Gain Bandwidth product



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.