

UTC PZTA42/43 NPNEPITAXIAL SILICON TRANSISTOR

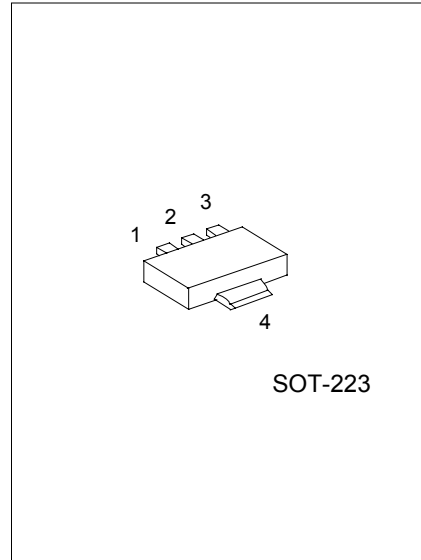
HIGH VOLTAGE TRANSISTOR

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:
 $P_{c(max)}=1000mW$



1:EMITTER 2,4:COLLECTOR 3:BASE

ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ C$)

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage			V
UTC PZTA42	V_{CB0}	300	
UTC PZTA43		200	
Collector-Emitter Voltage			V
UTC PZTA42	V_{CE0}	300	
UTC PZTA43		200	
Emitter-Base Voltage	V_{EB0}	6	V
Collector Power Dissipation	P_c	1000	mW
Collector Current	I_c	500	mA
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{STG}	-55 ~ +150	$^\circ C$

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CB0}	$I_c=100\mu A, I_E=0$				V
UTC PZTA42			300			
UTC PZTA43			200			
Collector-Emitter Breakdown Voltage	BV_{CE0}	$I_c=1mA, I_B=0$				V
UTC PZTA42			300			
UTC PZTA43			200			
Emitter-Base Breakdown Voltage	BV_{EB0}	$I_E=100\mu A, I_c=0$	6			V

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PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current UTC PZTA42 UTC PZTA43	I_{CBO}	$V_{CB}=200V, I_E=0$ $V_{CB}=160V, I_E=0$			100 100	nA
Emitter Cut-Off Current UTC PZTA42 UTC PZTA43	I_{EBO}	$V_{BE}=6V, I_C=0$ $V_{BE}=4V, I_C=0$			100 100	nA
DC Current Gain(note)	h_{FE}	$V_{CE}=10V, I_C=1mA$ $V_{CE}=10V, I_C=10mA$ $V_{CE}=10V, I_C=30mA$	80 80 80		300	
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 UTC PZTA42 UTC PZTA43	C_{cb}	$V_{CB}=20V, I_E=0$ $f=1MHz$			3 4	pF

TYPICAL PERFORMANCE CHARACTERISTICS

Fig.1 DC Current Gain

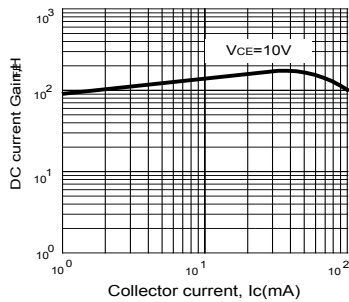


Fig.2 Saturation Voltage

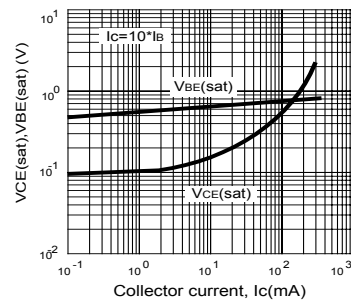


Fig.3 Capacitance

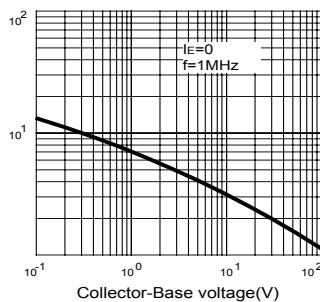
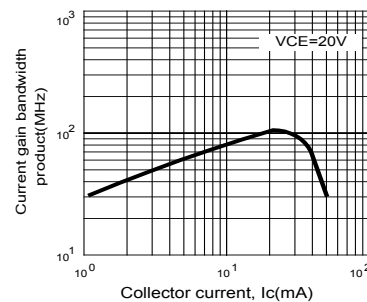


Fig.4 Current Gain Bandwidth product



UTCPZTA42/43 NPNEPITAXIAL SILICON TRANSISTOR

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