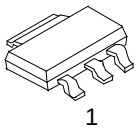
PZTA42/43

NPN SILICON TRANSISTOR

HIGH VOLTAGE TRANSISTOR



SOT-223

■ 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

■ 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

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

■ MARKING

PZTA42	PZTA43
PZTA42□ □□□□ 1 L: Lead Free G: Halogen Free Date Code	PZTA43□ □□□□ 1 L: Lead Free G: Halogen Free Date Code

■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage	PZTA42	V_{CBO}	300	V
	PZTA43		200	V
Collector-Emitter Voltage	PZTA42	V_{CEO}	300	V
	PZTA43		200	V
Emitter-Base Voltage		V_{EBO}	6	V
Collector Current		I_C	500	mA
Collector Power Dissipation		Pc	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 (T_A=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