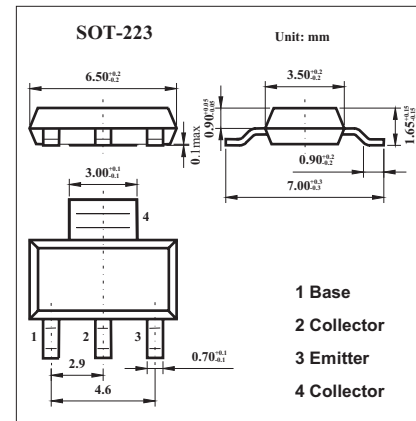


## NPN Silicon Planar High Voltage Transistor

## FZTA42

## ■ Features

- Suitable for video output stages in TV sets and switch mode power supplies
- High breakdown voltage

■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CB0}$	300	V
Collector-Emitter Voltage	$V_{CE0}$	300	V
Emitter-Base Voltage	$V_{EB0}$	5	V
Base Current	$I_B$	100	mA
Continuous Collector Current	$I_C$	500	mA
Power Dissipation at $T_{amb}=25^\circ\text{C}$	$P_{tot}$	2	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^\circ\text{C}$

■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	300			V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0^*$	300			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}, I_C=0$	5			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=200\text{V}, I_E=0$			0.1	$\mu\text{A}$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=5\text{V}, I_C=0$			0.1	$\mu\text{A}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=20\text{mA}, I_B=2\text{mA}$			0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=20\text{mA}, I_B=2\text{mA}$			0.9	V
Static Forward Current Transfer Ratio	$h_{FE}$	$I_C=1\text{mA}, V_{CE}=10\text{V}^*$	25			
		$I_C=10\text{mA}, V_{CE}=10\text{V}^*$	40			
		$I_C=30\text{mA}, V_{CE}=10\text{V}^*$	40			
Transition Frequency	$f_T$	$I_C=10\text{mA}, V_{CE}=20\text{V}, f=20\text{MHz}$	50			MHz
Output Capacitance	$C_{obo}$	$V_{CB}=20\text{V}, f=1\text{MHz}$			6	pF

\* Measured under pulsed conditions. Pulse width=300 $\mu\text{s}$ . Duty cycle  $\leq 2\%$