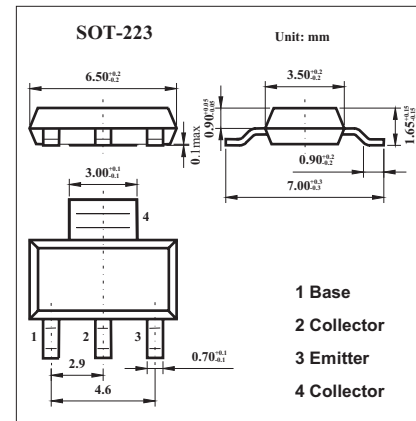


NPN Silicon Planar High Voltage Transistor

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	Testconditons	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	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			0.1	μA
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 μs . Duty cycle $\leq 2\%$