

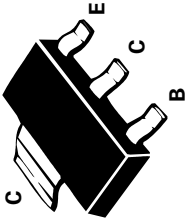
SOT223 NPN SILICON PLANAR
HIGH VOLTAGE TRANSISTOR

ISSUE 2 – NOVEMBER 93

FEATURES

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

FZTA42



COMPLIMENTARY TYPE – FZTA92
PARTMARKING DETAIL – DEVICE TYPE IN FULL

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	300	V
Collector-Emitter Voltage	V_{CEO}	300	V
Emitter-Base Voltage	V_{EBO}	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 (at $T_{amb} = 25^{\circ}\text{C}$).

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

* Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$
For typical characteristics graphs see FMMTA42 datasheet.