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Not Recommended for New Design

Please Use DZTA42

SOT223 NPN SILICON PLANAR

HIGH VOLTAGE TRANSISTOR

ISSUE 3 – SEPTEMBER 2007

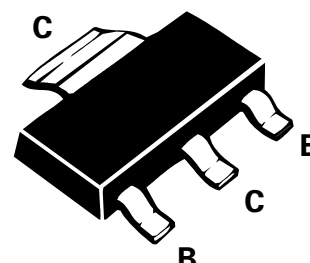
FZTA42

FEATURES

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

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 $T_{amb}=25^{\circ}C$	P_{tot}	2	W
Operating and Storage Temperature Range	$T_j:T_{stg}$	-55 to +150	$^{\circ}C$

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$).

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

* Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$

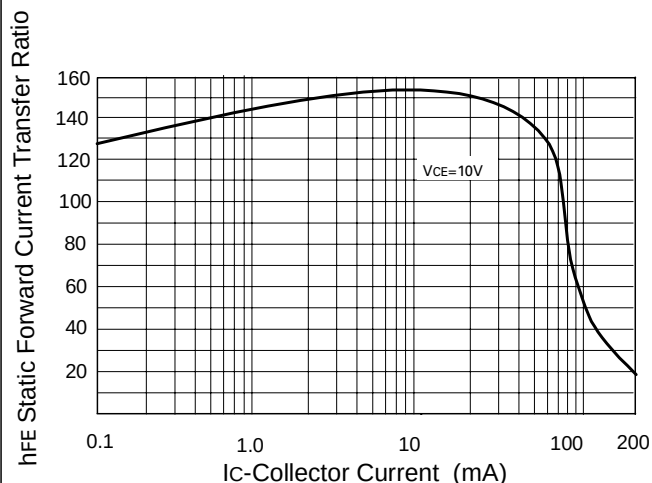
For typical characteristics graphs see FMMTA42 datasheet

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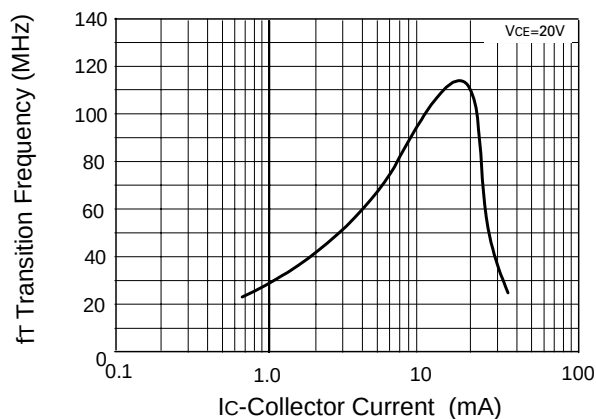
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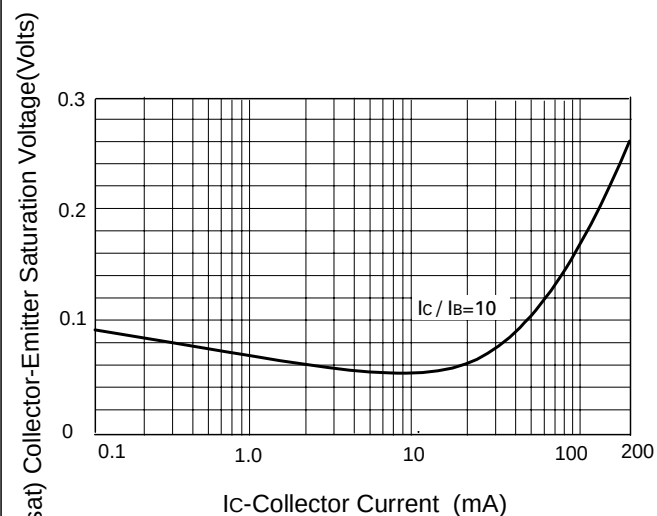
TYPICAL CHARACTERISTICS



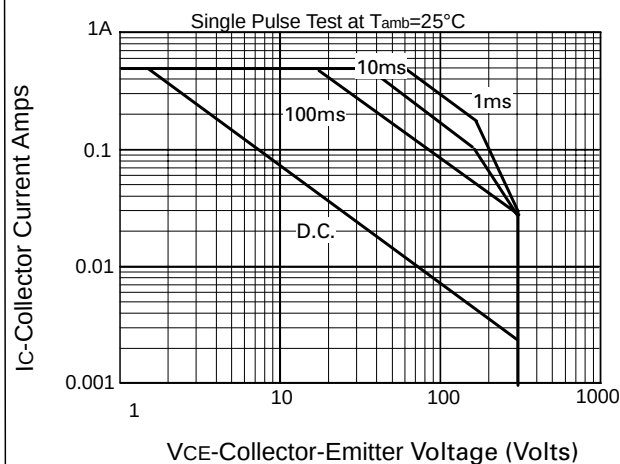
hFE vs IC



f_t vs IC



$V_{CE(sat)}$ vs IC



Safe operating area