

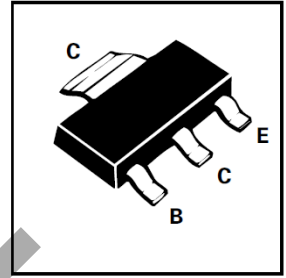
FEATURES

- * High breakdown voltage
- * **For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q100/101/104/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please [contact us](#) or your local Diodes representative.**
<https://www.diodes.com/quality/product-definitions/>

APPLICATIONS

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

COMPLIMENTARY TYPE – FZTA42
PARTMARKING DETAIL – DEVICE TYPE IN FULL



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CB0}	-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}			-0.25	μA	$V_{CB} = -200V, I_E = 0$
Emitter Cut-Off Current	I_{EBO}			-0.1	μA	$V_{EB} = -3V, I_C = 0$
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 25				$I_C = -1mA, V_{CE} = -10V^*$ $I_C = -10mA, V_{CE} = -10V^*$ $I_C = -30mA, V_{CE} = -10V^*$
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 FMMTA92 datasheet.

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