

SOT223 PNP SILICON PLANAR MEDIUM POWER DARLINGTON TRANSISTOR

FZT704

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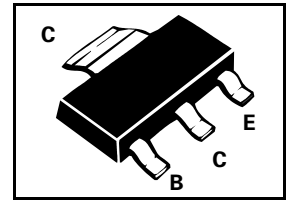
FEATURES

- * 2A CONTINUOUS CURRENT
- * FAST SWITCHING
- * GUARANTEED h_{FE} SPECIFIED UP TO 2A

COMPLEMENTARY TYPE – FZT 604

PART MARKING DETAIL – FZT704

ABSOLUTE MAXIMUM RATINGS.



PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-120	V
Collector-Emitter Voltage	V_{CEO}	-100	V
Emitter-Base Voltage	V_{EBO}	-10	V
Peak Pulse Current	I_{CM}	-4	A
Continuous Collector Current	I_C	-1.5	A
Power Dissipation	P_{TOT}	2	W
Operating and Storage Temperature Range	$tj:tstg$	-55 to +150	°C

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Breakdown Voltages	$V_{(BR)CBO}$	-120			V	$I_C = 100\mu A$
	$V_{(BR)CEO}$	-100			V	$I_C = 10mA$
	$V_{(BR)EBO}$	-10			V	$I_E = 100\mu A$
Collector Cut-Off Currents	I_{CBO}			-0.1	μA	$V_{CB} = 100V$
	I_{CES}			-10	μA	$V_{CB} = 100V, T_{amb} = 100^{\circ}C$
Emitter Cut-Off Current	I_{EBO}			-0.1	μA	$V_{EB} = 8V$
Saturation Voltages	$V_{CE(sat)}$			-1.3 -2.5	V	$I_C = 1A, I_B = 1mA^*$
	$V_{BE(sat)}$			-1.8	V	$I_C = 1A, I_B = 10mA^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$			-1.7	V	$I_C = 1A, V_{CE} = 5V$
Static Forward Current Transfer	h_{FE}	3000 3000 3000 2000		30000		$I_C = 10mA, V_{CE} = 5V^*$ $I_C = 100mA, V_{CE} = 5V^*$ $I_C = 1A, V_{CE} = 5V^*$ $I_C = 2A, V_{CE} = 5V^*$
Transition Frequency	f_T		160		MHz	$I_C = 100mA, V_{CE} = 10V$ $f = 20MHz$
Input Capacitance	C_{ibo}		90		pF	$V_{EB} = 0.5V, f = 1MHz$
Output Capacitance	C_{obo}		15		pF	$V_{EB} = 10V, f = 1MHz$
Switching Times	T_{on}		0.6		μs	$I_C = 0.5A, V_{CE} = 10V$
	T_{off}		0.8		μs	$I_{B1} = I_{B2} = 0.5mA$

*Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$
Spice parameter data is available upon request for this device
For typical graphs see FZT705 datasheet

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TYPICAL CHARACTERISTICS

