

SOT223 NPN SILICON PLANAR HIGH VOLTAGE TRANSISTOR

FZT658

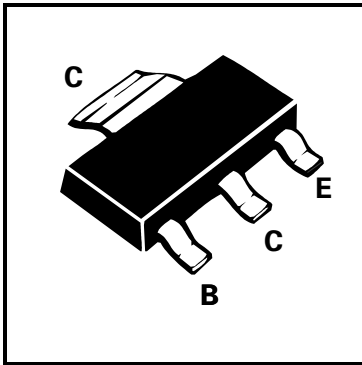
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FEATURES

- * 400 Volt V_{CEO}
- * Low saturation voltage

COMPLEMENTARY TYPE - FZT758

PARTMARKING DETAIL - FZT658



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	400	V
Collector-Emitter Voltage	V_{CEO}	400	V
Emitter-Base Voltage	V_{EBO}	5	V
Peak Pulse Current	I_{CM}	1	A
Continuous Collector Current	I_C	0.5	A
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 $T_{amb} = 25^\circ\text{C}$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Breakdown Voltage	$V_{(BR)CBO}$	400		V	$I_C=100\mu\text{A}$
	$V_{(BR)CEO}$	400		V	$I_C=10\text{mA}^*$
	$V_{(BR)EBO}$	5		V	$I_E=100\mu\text{A}$
Collector Cut-Off Current	I_{CBO}		100	nA	$V_{CB}=320\text{V}$
Emitter Cut-Off Current	I_{EBO}		100	nA	$V_{EB}=4\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		0.3	V	$I_C=20\text{mA}, I_B=1\text{mA}^*$
			0.25	V	$I_C=50\text{mA}, I_B=5\text{mA}^*$
			0.5	V	$I_C=100\text{mA}, I_B=10\text{mA}$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		0.9	V	$I_C=100\text{mA}, I_B=10\text{mA}^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		1.0	V	$I_C=100\text{mA}, V_{CE}=5\text{V}^*$
Static Forward Current Transfer Ratio	h_{FE}	50			$I_C=1\text{mA}, V_{CE}=5\text{V}^*$
		50			$I_C=100\text{mA}, V_{CE}=5\text{V}^*$
		40			$I_C=200\text{mA}, V_{CE}=10\text{V}^*$
Transition Frequency	f_T	50		MHz	$I_C=10\text{mA}, V_{CE}=20\text{V}$ $f=20\text{MHz}$
Output Capacitance	C_{obo}		10	pF	$V_{CB}=20\text{V}, f=1\text{MHz}$
Switching Times	t_{on}		130	ns	$I_C=100\text{mA}, V_{CC}=100\text{V}$ $I_{B1}=10\text{mA}, I_{B2}=-20\text{mA}$
	t_{off}		3300	ns	

*Measured under pulsed conditions. Pulse Width=300 μs . Duty cycle $\leq 2\%$
Spice parameter data is available upon request for this device

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TYPICAL CHARACTERISTICS

