

SOT223 PNP SILICON PLANAR HIGH VOLTAGE TRANSISTOR

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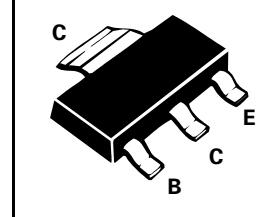
FEATURES

- * 400 Volt V_{CEO}
- * 0.5 Amp continuous current
- * Low saturation voltage

COMPLEMENTARY TYPE – FZT658

PART MARKING DETAIL – FZT758

FZT758



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	-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 $T_{amb} = 25^\circ\text{C}$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-400		V	$I_C=-100\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{CEO(SUS)}$	-400		V	$I_C=10\text{mA}^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		V	$I_E=-100\mu\text{A}$
Collector Cut-Off Current	I_{CBO}		-100	nA	$V_{CB}=-320\text{V}$
Collector Cut-Off Current	I_{CES}		-100	nA	$V_{CE}=-320\text{V}$
Emitter Cut-Off Current	I_{EBO}		-100	nA	$V_{EB}=-4\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-0.30 -0.25 -0.50	V	$I_C=20\text{mA}, I_B=1\text{mA}$ $I_C=50\text{mA}, I_B=5\text{mA}^*$ $I_C=100\text{mA}, I_B=10\text{mA}^*$	
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 50 40			$I_C=1\text{mA}, V_{CE}=-5\text{V}$ $I_C=100\text{mA}, V_{CE}=-5\text{V}^*$ $I_C=200\text{mA}, V_{CE}=-10\text{V}^*$
Transition Frequency	f_T	50		MHz	$I_C=20\text{mA}, V_{CE}=-20\text{V}$ $f=20\text{MHz}$
Output Capacitance	C_{obo}		20	pF	$V_{CB}=-20\text{V}, f=1\text{MHz}$
Switching times	t_{on} t_{off}	140 2000	Typical	ns ns	$I_C=100\text{mA}, V_{CC}=-100\text{V}$ $I_{B1}=10\text{mA}, I_{B2}=20\text{mA}$

* Measured under pulsed conditions. Pulse width=300μs. Duty cycle ≤2%

Spice parameter data is available upon request for this device

TYPICAL CHARACTERISTICS

