

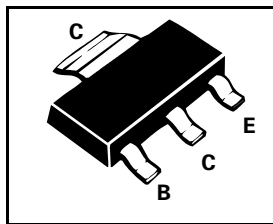
SOT223 PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

ISSUE 3 - NOVEMBER 1995



FZT591

COMPLEMENTARY TYPE FZT491
PARTMARKING DETAIL - FZT591



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-80	V
Collector-Emitter Voltage	V_{CEO}	-60	V
Emitter-Base Voltage	V_{EBO}	-5	V
Peak Pulse Current	I_{CM}	-2	A
Continuous Collector Current	I_C	-1	A
Base Current	I_B	-200	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 $T_{amb} = 25^\circ\text{C}$).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Breakdown Voltages	$V_{(BR)CBO}$	-80		V	$I_C = -100\mu\text{A}, I_E = 0$
	$V_{(BR)CEO}$	-60		V	$I_C = -10\text{mA}, I_B = 0^*$
	$V_{(BR)EBO}$	-5		V	$I_E = -100\mu\text{A}, I_C = 0$
Collector Cut-Off Current	I_{CBO}		-100	nA	$V_{CB} = -60\text{V}$
Emitter Cut-Off Current	I_{EBO}		-100	nA	$V_{EB} = -4\text{V}, I_C = 0$
Collector-Emitter Cut-Off Current	I_{CES}		-100	nA	$V_{CES} = -60\text{V}$
Emitter Saturation Voltages	$V_{CE(sat)}$		-0.3 -0.6	V	$I_C = -500\text{mA}, I_B = -50\text{mA}^*$ $I_C = -1\text{A}, I_B = -100\text{mA}^*$
	$V_{BE(sat)}$		-1.2	V	$I_C = -1\text{A}, I_B = -100\text{mA}^*$
Base-Emitter Turn-on Voltage	$V_{BE(on)}$		-1.0	V	$I_C = -1\text{A}, V_{CE} = -5\text{V}^*$
Static Forward Current Transfer Ratio	h_{FE}	100	300		$I_C = -1\text{mA}, V_{CE} = -5\text{V}^*$
		100			$I_C = -500\text{mA}, V_{CE} = -5\text{V}^*$
		80			$I_C = -1\text{A}, V_{CE} = -5\text{V}^*$
		15			$I_C = -2\text{A}, V_{CE} = -5\text{V}^*$
Transition Frequency	f_T	150		MHz	$I_C = -50\text{mA}, V_{CE} = -10\text{V}$ $f = 100\text{MHz}$
Output Capacitance	C_{obo}		10	pF	$V_{CB} = -10\text{V}, f = 1\text{MHz}$

*Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$
For typical Characteristics graphs see FMMT591 datasheet