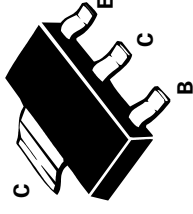


**SOT223 NPN SILICON PLANAR
MEDIUM POWER TRANSISTOR**

ISSUE 3 – NOVEMBER 1995

FZT493



COMPLEMENTARY TYPE – FZT593

PARTMARKING DETAIL – FZT493

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}	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 $T_{amb}=25^{\circ}C$	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.
Breakdown Voltages	$V_{(BR)CBO}$	120			V	$I_C=100\mu A$
	$V_{(BR)CEO}$	100			V	$I_C=10mA^*$
	$V_{(BR)EBO}$	5			V	$I_E=100\mu A$
Cut-Off Currents	I_{CBO}			100	nA	$V_{CE}=100V$
	I_{EBO}			100	nA	$V_{EB}=4V$
	I_{CES}			100	nA	$V_{CES}=100V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		0.3	0.6	V	$I_C=500mA, I_B=50mA^*$
					V	$I_C=1A, I_B=100mA^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			1.15	V	$I_C=1A, I_B=100mA^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$			1.0	V	$I_C=1A, V_{CE}=10V^*$
Static Forward Current	I_{FE}	100				$I_C=1mA, V_{CE}=10V$
		100		300		$I_C=250mA, V_{CE}=10V^*$
		80				$I_C=500mA, V_{CE}=10V^*$
		30				$I_C=1A, V_{CE}=10V^*$
Transition Frequency	f_T	150			MHz	$I_C=50mA, V_{CE}=10V, f=100MHz$
Output Capacitance	C_{ob0}			10	pF	$V_{CE}=10V, f=1MHz$

*Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$
For typical Characteristics graphs see FMMT493 datasheet

