

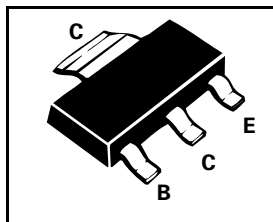
# SOT223 PNP SILICON PLANAR HIGH VOLTAGE TRANSISTOR

ISSUE 3 - NOVEMBER 1995



## FZT593

COMPLEMENTARY TO FZT493  
PARTMARKING DETAIL - FZT593



### 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.	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	$I_E = -100\mu A$
Collector Cut-Off Current	$I_{CBO}$		-100	nA	$V_{CB} = -100V$
Emitter Cut-Off Current	$I_{EBO}$		-100	nA	$V_{EB} = -4V$
Collector-Emitter Cut-Off Current	$I_{CES}$		-100	nA	$V_{CES} = -100V$
Saturation Voltages	$V_{CE(sat)}$	-0.2		V	$I_C = -250mA, I_B = -25mA^*$
		-0.3		V	$I_C = -500mA, I_B = -50mA^*$
	$V_{BE(sat)}$		-1.1	V	$I_C = -500mA, I_B = -50mA^*$
Base-Emitter Turn-on Voltage	$V_{BE(on)}$		-1.0	V	$I_C = -1mA, V_{CE} = -5V^*$
Static Forward Current Transfer Ratio	$h_{FE}$	100	300		$I_C = -1mA, V_{CE} = -5V$
		100			$I_C = -250mA, V_{CE} = -5V^*$
		100			$I_C = -500mA, V_{CE} = -5V^*$
		50			$I_C = -1A, V_{CE} = -5V^*$
Transition Frequency	$f_T$	50		MHz	$I_C = -50mA, V_{CE} = -10V$ $f = 100MHz$
Output Capacitance	$C_{obo}$		5	pF	$V_{CB} = -10V, f = 1MHz$

\*Measured under pulsed conditions. Pulse width=300 $\mu s$ . Duty cycle  $\leq 2\%$   
For typical Characteristics graphs see FM593 datasheet