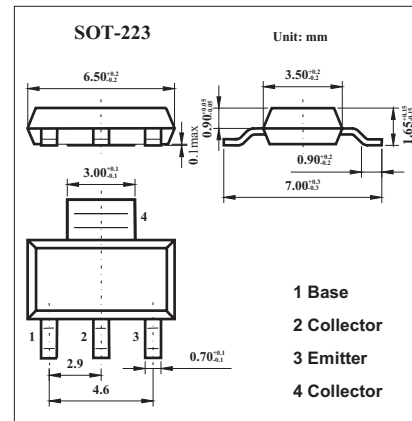


# FZT593

■ Features

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■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CB0}$	-120	V
Collector-Emitter Voltage	$V_{CE0}$	-100	V
Emitter-Base Voltage	$V_{EB0}$	-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 Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ.	Max	Unit
Breakdown Voltages	V <sub>(BR)CBO</sub>	I <sub>C</sub> =-100μA	-120			V
Breakdown Voltages	V <sub>(BR)CEO</sub>	I <sub>C</sub> =-10mA*	-100			V
Breakdown Voltages	V <sub>(BR)EBO</sub>	I <sub>E</sub> =-100μA	-5			V
Collector Cut-Off Current	I <sub>CBO</sub>	V <sub>CB</sub> =-100V			-100	nA
Emitter Cut-Off Current	I <sub>EBO</sub>	V <sub>EB</sub> =-4V			-100	nA
Collector-Emitter Cut-Off Current	I <sub>CES</sub>	V <sub>CE</sub> =-100V			-100	nA
Saturation Voltages	V <sub>CE(sat)</sub>	I <sub>C</sub> =-250mA, I <sub>B</sub> =-25mA*			-0.2	V
		I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA*			-0.3	V
	V <sub>BE(sat)</sub>	I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA*			-1.1	V
Base-Emitter Turn-on Voltage	V <sub>BE(on)</sub>	I <sub>C</sub> =-1mA, V <sub>CE</sub> =-5V*			-1.0	V
Static Forward Current Transfer Ratio	h <sub>FE</sub>	I <sub>C</sub> =-1mA, V <sub>CE</sub> =-5V	100			
		I <sub>C</sub> =-250mA, V <sub>CE</sub> =-5V*	100			
		I <sub>C</sub> =-500mA, V <sub>CE</sub> =-5V*	100	300		
		I <sub>C</sub> =-1A, V <sub>CE</sub> =-5V*	50			
Transition Frequency	f <sub>T</sub>	I <sub>C</sub> =-50mA, V <sub>CE</sub> =-10V, f=100MHz	50			MHz
Output Capacitance	C <sub>obo</sub>	V <sub>CB</sub> =-10V, f=1MHz		5		pF

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

■ Marking

Marking	FZT593
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