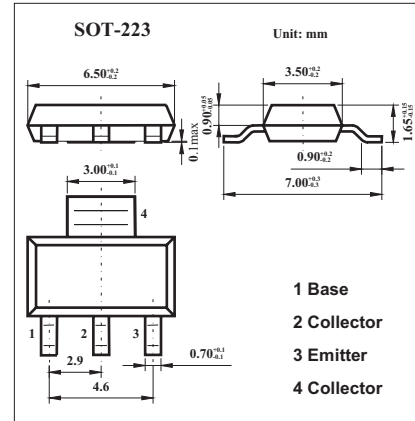


FZT653

■ Features

- Low saturation voltage



■ 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}	6	A
Continuous Collector Current	I_C	2	A
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
Collector-Base Breakdown Voltage	V _{(BR)CBO}	I _C =100μA	120			V
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C =10mA*	100			V
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _E =100μA	5			V
Collector Cut-Off Current	I _{CBO}	V _{CB} =100V			0.1	μA
		V _{CB} =100V, T _{amb} =100°C			10	μA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =4V			0.1	μA
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =1A, I _B =100mA*		0.13	0.3	V
		I _C =2A, I _B =200mA*		0.23	0.5	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C =1A, I _B =100mA*		0.9	1.25	V
Base-Emitter Turn-On Voltage	V _{BE(on)}	I _C =1A, V _{CE} =2V*		0.8	1.0	V
Static Forward Current Transfer Ratio	h _{FE}	I _C =50mA, V _{CE} =2V*	70	200		
		I _C =500mA, V _{CE} =2V*	100	200	300	
		I _C =1A, V _{CE} =2V*	55	110		
		I _C =2A, V _{CE} =2V*	25	55		
Transition Frequency	f _T	I _C =100mA, V _{CE} =5V, f=100MHz	140	175		MHz
Output Capacitance	C _{obo}	V _{CB} =10V, f=1MHz			30	pF
Switching Times	t _{on}	I _C =500mA, V _{CC} =10V		80		ns
	t _{off}	I _{B1} =I _{B2} =50mA		1200		ns

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

■ Marking

Marking	FZT653
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