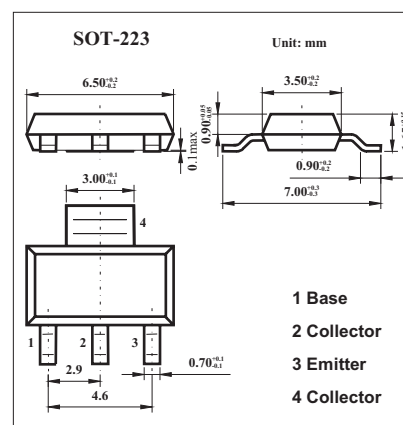


NPN Silicon Planar High Voltage Transistor

FZT658

■ Features

- 400 Volt V_{CE0}
- Low saturation voltage

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

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	400	V
Collector-Emitter Voltage	V_{CEO}	400	V
Emitter-Base Voltage	V_{EBO}	5	V
Peak Pulse Current	I_{CM}	1	A
Continuous Collector Current	I_C	0.5	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	$^\circ\text{C}$

FZT658

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ.	Max	Unit
Breakdown Voltage	$V_{(BR)CBO}$	$I_C=100\mu A$	400			V
Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10mA^*$	400			V
Breakdown Voltage	$V_{(BR)EBO}$	$I_E=100\mu A$	5			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=320V$			100	nA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=4V$			100	nA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=20mA, I_B=1mA^*$			0.3	V
		$I_C=50mA, I_B=5mA^*$			0.25	V
		$I_C=100mA, I_B=10mA$			0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=100mA, I_B=10mA^*$			0.9	V
Base-Emitter Turn-On Voltage	$V_{BE(on)}$	$I_C=100mA, V_{CE}=5V^*$			1.0	V
Static Forward Current Transfer Ratio	h_{FE}	$I_C=1mA, V_{CE}=5V^*$	50			
		$I_C=100mA, V_{CE}=5V^*$	50			
		$I_C=200mA, V_{CE}=10V^*$	40			
Transition Frequency	f_T	$I_C=10mA, V_{CE}=20V, f=20MHz$	50			MHz
Output Capacitance	C_{obo}	$V_{CB}=20V, f=1MHz$			10	pF
Switching Times	t_{on}	$I_C=100mA, V_{CC}=100V$			130	ns
	t_{off}	$I_{B1}=10mA, I_{B2}=-20mA$			3300	ns

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

■ Marking

Marking	FZT658
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