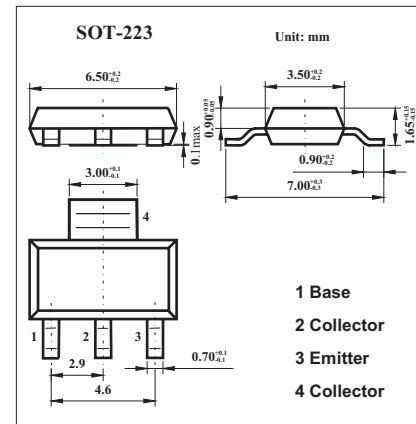


NPN Silicon Planar High Voltage Transistor

FZT458

■ Features

- 400 Volt V_{CE0}

■ 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}	300	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	$^\circ\text{C}$

FZT458

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Max	Unit
Breakdown Voltages	$V_{(BR)CBO}$	$I_C=100\mu A$	400		V
Breakdown Voltages	$V_{CEO(sus)}$	$I_C=10mA^*$	400		V
Breakdown Voltages	$V_{(BR)EBO}$	$I_E=100\mu A$	5		V
Collector Cut-Off Currents	I_{CBO}	$V_{CB}=320V$		100	nA
	I_{CES}	$V_{CE}=320V$		100	nA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=4V$		100	nA
Emitter Saturation Voltages	$V_{CE(sat)}$	$I_C=20mA, I_B=2mA^*$		0.2	V
		$I_C=50mA, I_B=6mA^*$		0.5	V
	$V_{BE(sat)}$	$I_C=50mA, I_B=5mA^*$		0.9	V
Base-Emitter Turn On Voltage	$V_{BE(on)}$	$I_C=50mA, V_{CE}=10V^*$		0.9	V
Static Forward Current Transfer Ratio	h_{FE}	$I_C=1mA, V_{CE}=10V$	100		
		$I_C=50mA, V_{CE}=10V^*$	100	300	
		$I_C=100mA, V_{CE}=10V^*$	15		
Transition Frequency	f_T	$I_C=10mA, V_{CE}=20V, f=20MHz$			MHz
Collector-Base Breakdown Voltage	C_{obo}	$V_{CB}=20V, f=1MHz$		5	pF
Switching times	t_{on}	$I_C=50mA, V_{CC}=100V$	135 Typical		ns
	t_{off}	$I_{B1}=5mA, I_{B2}=-10mA$	2260 Typical		ns

* Measured under pulsed conditions. Pulse width=300 μ s. Duty cycle \leq 2%

■ Marking

Marking	FZT458
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