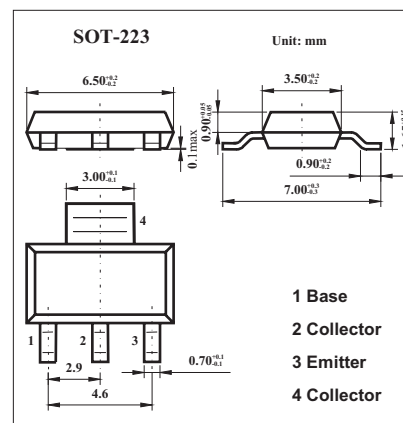


NPN Silicon Planar High Voltage Transistor

FZT955;FZT956

■ Features

- 4 Amps continuous current
- Very low saturation voltages
- Excellent gain characteristics specified up to 3 Amps

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

Parameter	Symbol	FZT955	FZT956	Unit
Collector-Base Voltage	V_{CB0}	-180	-220	V
Collector-Emitter Voltage	V_{CE0}	-140	-200	V
Emitter-Base Voltage	V_{EB0}	-6	-6	V
Peak Pulse Current	I_{CM}	-10	-5	A
Continuous Collector Current	I_C	-4	-2	A
Power Dissipation at $T_{amb}=25^\circ\text{C}$	P_{tot}	3	3	W
Operating and Storage Temperature Range	$T_j:T_{stg}$	-55 to +150	-55 to +150	$^\circ\text{C}$

FZT955;FZT956

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -100\mu A$	-180	-210		V
Collector-Emitter Breakdown Voltage	$V_{(BR)CER}$	$I_C = -1\mu A, R_B \leq 1k\Omega$	-180	-210		V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -10mA^*$	-140	-170		V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -100\mu A$	-6	-8		V
Collector Cut-Off Current	I_{CBO}	$V_{CB} = -150V$			-50	nA
		$V_{CB} = -150V, T_{amb} = 100^\circ C$			-1	μA
Collector Cut-Off Current ($R \leq 1k\Omega$)	I_{CER}	$V_{CB} = -150V$			-50	nA
		$V_{CB} = -150V, T_{amb} = 100^\circ C$			-1	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = -6V$			-10	nA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -100mA, I_B = -5mA^*$		-30	-60	mV
		$I_C = -500mA, I_B = -50mA^*$		-70	-120	mV
		$I_C = -1A, I_B = -100mA^*$		-110	-150	mV
		$I_C = -3A, I_B = -300mA^*$		-275	-370	mV
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -3A, I_B = -300mA^*$		-970	-1110	mV
Base-Emitter Turn-On Voltage	$V_{BE(on)}$	$I_C = -3A, V_{CE} = -5V^*$		-830	-950	mV
Static Forward Current Transfer Ratio	h_{FE}	$I_C = -10mA, V_{CE} = -5V^*$	100	200		
		$I_C = -1A, V_{CE} = -5V^*$	100	200	300	
		$I_C = -3A, V_{CE} = -5V^*$	75	140		
		$I_C = -10A, V_{CE} = -5V^*$		10		
Transition Frequency	f_T	$I_C = -100mA, V_{CE} = -10V, f = 50MHz$		110		MHz
Output Capacitance	C_{obo}	$V_{CB} = -20V, f = 1MHz$		40		pF
Switching Times	t_{on}	$I_C = -1A, I_{B1} = -100mA$		68		ns
	t_{off}	$I_{B2} = 100mA, V_{CC} = -50V$		1030		ns

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