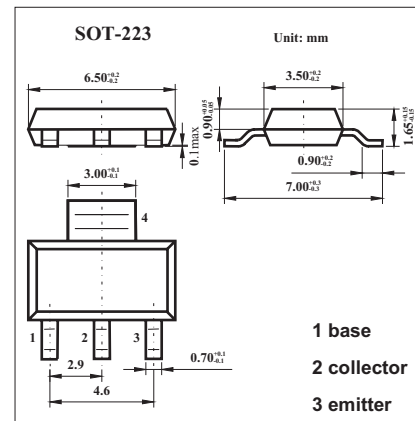


PNP Silicon Planar High Current Transistors

FZT951

■ Features

- 5 Amps continuous current , up to 15 Amps peak current.
- Very low saturation voltages.
- Excellent gain characteristics specified up to 10 Amps.
- $P_{tot} = 3$ watts.
- FZT951 exhibits extremely low equivalent on resistance;
 $R_{CE(sat)} 55m\Omega$ at 4A.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	-100	V
Collector-emitter voltage	V_{CE0}	-60	V
Emitter-base voltage	V_{EB0}	-6	V
Continuous collector current	I_{CM}	-15	A
Peak pulse current	I_C	-5	A
Power dissipation	P_{tot}	3	W
Operating and storage temperature range	T_j, T_{stg}	-55 to +150	$^\circ\text{C}$

FZT951

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A$	-100	-140		V
Collector-emitter breakdown voltage *	$V_{(BR)CEO}$	$I_C = -10mA$	-60	-90		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A$	-6	-8		V
Collector Cut-Off Current	I_{CBO}	$V_{CB} = -80V$ $V_{CB} = -80V, T_a = 100^\circ C$			-50 1	nA μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = -6V$			-10	nA
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = -100mA, I_B = -10mA$ $I_C = -1A, I_B = -100mA$ $I_C = -2A, I_B = -200mA$ $I_C = -5A, I_B = -500mA$		-20 -85 -155 -137	-50 -140 -210 -460	mV
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C = -5A, I_B = -500mA$		-1080	-1240	mV
Base-emitter ON voltage *	$V_{BE(on)}$	$I_C = -5A, V_{CE} = -1V$		-935	-1070	mV
Static Forward Current Transfer Ratio*	h_{FE}	$I_C = -10mA, V_{CE} = -1V^*$	100	200		
		$I_C = -2A, V_{CE} = -1V^*$	100	200	300	
		$I_C = -5A, V_{CE} = -1V^*$	75	90		
		$I_C = -10A, V_{CE} = -1V^*$	10	25		
Transitional frequency	f_T	$I_C = -100mA, V_{CE} = -10V, f = 50MHz$		120		MHz
Output capacitance	C_{obo}	$V_{CB} = -10V, f = 1MHz$		74		pF
Turn-on time	$t_{(on)}$	$I_C = -2A, V_{CC} = -10V$		82		ns
Turn-off time	$t_{(off)}$	$I_{B1} = I_{B2} = -200mA$		350		ns

* Pulse test: $t_p = 300 \mu s$; $d \leq 0.02$.