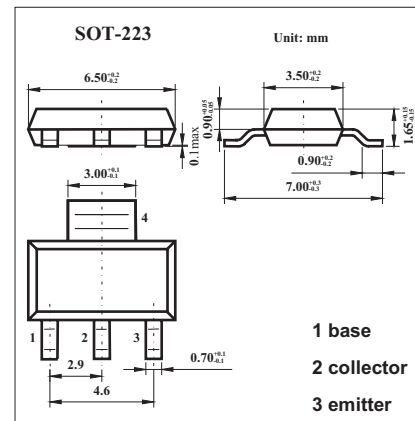


## PNP Silicon Planar High Current (High Performance) Transistor

### FZT949

#### ■ Features

- Extremely low equivalent on-resistance;  $R_{CE(sat)}$ .
- 6 Amps continuous current.
- Up to 20 Amps peak current.
- Very low saturation voltage.
- Excellent hFE characteristics specified upto 20 Amps.



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	-50	V
Collector-emitter voltage	$V_{CEO}$	-30	V
Emitter-base voltage	$V_{EBO}$	-6	V
Continuous collector current	$I_{CM}$	-20	A
Peak pulse current	$I_c$	-5.5	A
Power dissipation	$P_{tot}$	3	W
Operating and storage temperature range	$T_j, T_{stg}$	-55 to +150	$^\circ\text{C}$

## FZT949

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A$	-50	-80		V
Collector-emitter breakdown voltage *	$V_{(BR)CEO}$	$I_C = -10mA$	-30	-45		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A$	-50	-80		V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB} = -40V$ $V_{CB} = -40V, T_a = 100^\circ C$			-50 -1	nA $\mu A$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB} = -6V$			-10	nA
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = -0.5A, I_B = -10mA^*$ $I_C = -2A, I_B = -200mA^*$ $I_C = -4A, I_B = -400mA^*$ $I_C = -6A, I_B = -250mA^*$		-50 -85 -190 -350	-75 -140 -270 -440	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C = -5.5A, I_B = -500mA$		-1100	-1250	V
Base-emitter ON voltage *	$V_{BE(on)}$	$I_C = -5.5A, V_{CE} = -1V$		-900	-1060	V
Static Forward Current Transfer Ratio	$h_{FE}$	$I_C = -10mA, V_{CE} = -1V$	100	200		
		$I_C = -1A, V_{CE} = -1V^*$	100	200	300	
		$I_C = -5A, V_{CE} = -1V^*$	75	140		
		$I_C = -20A, V_{CE} = -2V^*$		35		
Transitional frequency	$f_T$	$I_C = -100mA, V_{CE} = -10V, f = 50MHz$		100		MHz
Output capacitance	$C_{obo}$	$V_{CB} = -10V, f = 1MHz$		122		pF
Turn-on time	$t_{(on)}$	$I_C = -4A, V_{CC} = -10V$		120		ns
Turn-off time	$t_{(off)}$	$I_{B1} = I_{B2} = -400mA$		130		ns

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