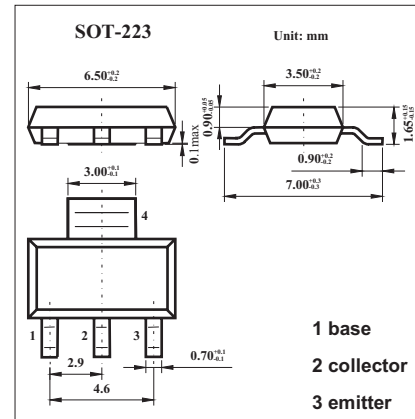


## PNP Silicon Planar Medium Power High Gain Transistor FZT788B

### ■ Features

- Low equivalent on-resistance;  $R_{CE(sat)}$  93m $\Omega$  at 3A.
- Gain of 300 at  $I_c=2$  Amps and Very low saturation voltage.



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	-15	V
Collector-emitter voltage	$V_{CE0}$	-15	V
Emitter-base voltage	$V_{EB0}$	-5	V
Continuous collector current	$I_{CM}$	-8	A
Peak pulse current	$I_c$	-3	A
Power dissipation	$P_{tot}$	2	W
Operating and storage temperature range	$T_j, T_{stg}$	-55 to +150	$^\circ\text{C}$

## FZT788B

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =-100μA	-15			V
Collector-emitter breakdown voltage *	V <sub>(BR)CEO</sub>	I <sub>C</sub> =-10mA	-15			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =-100μA	-5			V
Collector-base cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =-10V			-0.1	μA
Emitter Cut-Off Current	I <sub>EBO</sub>	V <sub>EB</sub> =-4V			-0.1	μA
Collector-emitter saturation voltage *	V <sub>CE(sat)</sub>	I <sub>C</sub> =-0.5A, I <sub>B</sub> =-2.5mA I <sub>C</sub> =-1A, I <sub>B</sub> =-5mA I <sub>C</sub> =-2A, I <sub>B</sub> =-10mA I <sub>C</sub> =-3A, I <sub>B</sub> =-50mA			-0.15 -0.25 -0.45 -0.5	V
Base-emitter saturation voltage *	V <sub>BE(sat)</sub>	I <sub>C</sub> =-1A, I <sub>B</sub> =-5mA			-0.9	V
Base-emitter ON voltage *	V <sub>BE(on)</sub>	I <sub>C</sub> =-1A, V <sub>CE</sub> =-2V		-0.75		V
Static Forward Current Transfer Ratio	h <sub>FE</sub>	I <sub>C</sub> =-10mA, V <sub>CE</sub> =-2V *	500		1500	
		I <sub>C</sub> =-1A, V <sub>CE</sub> =-2V*	400			
		I <sub>C</sub> =-2A, V <sub>CE</sub> =-2V*	300			
		I <sub>C</sub> =-6A, V <sub>CE</sub> =-2V*	150			
Transitional frequency	f <sub>T</sub>	I <sub>C</sub> =-50mA, V <sub>CE</sub> =-5V, f=50MHz	100			MHz
Input capacitance	C <sub>ibo</sub>	V <sub>EB</sub> =-0.5V, f=1MHz		225		pF
Output capacitance	C <sub>obo</sub>	V <sub>CB</sub> =-10V, f=1MHz		25		pF
Turn-on time	t <sub>(on)</sub>	I <sub>C</sub> =-500mA, V <sub>CC</sub> =-10V		35		ns
Turn-off time	t <sub>(off)</sub>	I <sub>B1</sub> =I <sub>B2</sub> =-50mA		400		ns

\* Pulse test: t<sub>p</sub> = 300 μs; d ≤ 0.02.

## ■ Marking

Marking	FZT788B
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