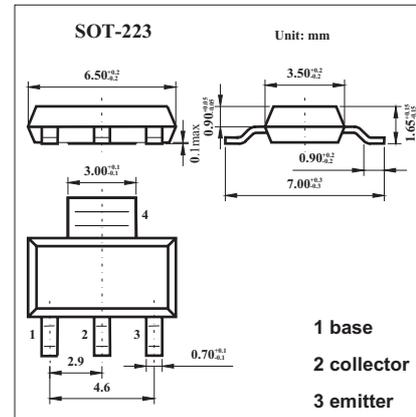


NPN Silicon Planar Medium Power Transistor FZT749

■ Features

- 25 Volt V_{CE0} .
- 3 Amp continuous current.
- Low saturation voltage.
- Excellent h_{FE} specified up to 6A .



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	-35	V
Collector-emitter voltage	V_{CE0}	-25	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	$^\circ\text{C}$

FZT749

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Breakdown Voltages	V _{(BR)CBO}	I _C =-100μA	-35			V
Breakdown Voltages	V _{(BR)CEO}	I _C =-10mA	-25			V
Breakdown Voltages	V _{(BR)EBO}	I _E =-100μA	-5			V
Collector Cut-Off Currents	I _{CBO}	V _{CB} =-30V V _{CB} =-30V, T _a = 100°C			-0.1 -10	μA
Collector Cut-Off Currents	I _{EBO}	V _{EB} =4V			-0.1	μA
Saturation Voltages *	V _{CE(sat)}	I _C =-1A, I _B =-100mA I _C =-3A, I _B =-300mA		-0.12 -0.40	-0.3 -0.6	V
Saturation Voltages *	V _{BE(sat)}	I _C =-1A, I _B =-100mA		-0.9	-1.25	V
Base-emitter ON voltage *	V _{BE(on)}	I _C =-1A, V _{CE} =-2V		-0.8	-1.0	V
Static Forward Current Transfer Ratio	h _{FE}	I _C =-50mA, V _{CE} =-2V*	70	200		
		I _C =-1A, V _{CE} =-2V*	100	200	300	
		I _C =-2A, V _{CE} =-2V*	75	150		
		I _C =-6A, V _{CE} =-2V*	15	50		
Transitional frequency	f _T	I _C =-100mA, V _{CE} =-5V, f=100MHz	100	160		MHz
Output capacitance	C _{obo}	V _{CB} =-10V, f=1MHz		55	100	pF
Turn-on time	t _(on)	I _C =-500mA, V _{CC} =-10V		40		ns
Turn-off time	t _(off)	I _{B1} =I _{B2} =-50mA		450		ns

* Pulse test: t_p = 300 μs; d ≤ 0.02.

■ Marking

Marking	FZT749
---------	--------