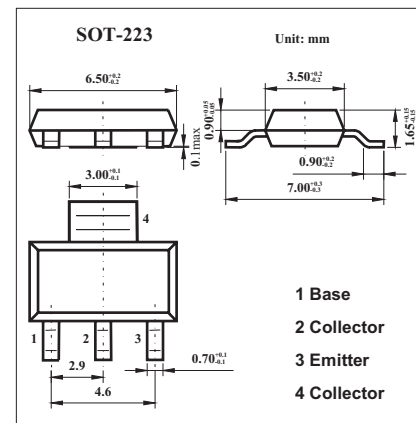


NPN Silicon Planar High Current Transistor

FZT857

■ Features

- Up to 3.5 Amps continuous collector current, up to 5 Amp peak
- $V_{CE0} = 300V$
- Very low saturation voltage
- Excellent hFE specified up to 3 Amps

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

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	350	V
Collector-Emitter Voltage	V_{CE0}	300	V
Emitter-Base Voltage	V_{EB0}	6	V
Peak Pulse Current	I_{CM}	5	A
Continuous Collector Current	I_C	3.5	A
Power Dissipation at $T_{amb}=25^\circ C$	P_{tot}	3	W
Operating and Storage Temperature Range	$T_J; T_{stg}$	-55 to +150	$^\circ C$

FZT857

■ Electrical Characteristics Ta = 25°C unless otherwise stated

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	V _{(BR)CBO}	I _C =100μA	350	475		V
Collector-Emitter Breakdown Voltage	V _{(BR)CER}	I _C =1μA, R _B ≤1KΩ	350	475		V
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C =10mA*	300	350		V
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _E =100μA	6	8		V
Collector Cut-Off Current	I _{CBO}	V _{CB} =300V			50	nA
		V _{CB} =300V, T _{amb} =100°C			1	μA
Collector Cut-Off Current R≤1KΩ	I _{CER}	V _{CB} =300V			50	nA
		V _{CB} =300V, T _{amb} =100°C			1	μA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =6V			10	nA
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =500mA, I _B =50mA*			100	mV
		I _C =1A, I _B =100mA*			155	mV
		I _C =2A, I _B =200mA*			230	mV
		I _C =3.5A, I _B =600mA*			345	mV
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C =3.5A, I _B =600mA*			1250	mV
Base-Emitter Turn-On Voltage	V _{BE(on)}	I _C =3.5A, V _{CE} =10V*			1.12	V
Static Forward Current Transfer Ratio	h _{FE}	I _C =10mA, V _{CE} =5V	100	200		
		I _C =500mA, V _{CE} =10V*	100	200	300	
		I _C =2A, V _{CE} =10V*	15	25		
		I _C =3A, V _{CE} =10V*		15		
Transition Frequency	f _T	I _C =100mA, V _{CE} =10V, f=50MHz		80		MHz
Output Capacitance	C _{obo}	V _{CB} =20V, f=1MHz		11		pF
Switching Times	t _{on}	I _C =250mA, I _{B1} =25mA		100		ns
	t _{off}	I _{B2} =25mA, V _{CC} =50V		5300		ns

*Measured under pulsed conditions. Pulse width=300μs. Duty cycle≤2%

■ Marking

Marking	FZT857
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