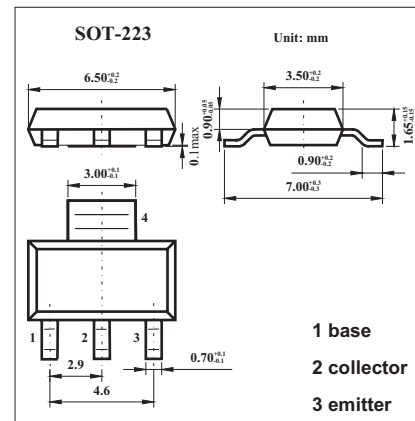


NPN Silicon Planar High Performance Transistors FZT651

■ Features

- 60 Volt V_{CE0} .
- 3 Amp continuous current.
- Low saturation voltage.



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	80	V
Collector-emitter voltage	V_{CEO}	60	V
Emitter-base voltage	V_{EBO}	5	V
Peak pulse current	I_C	3	A
Continuous collector current	I_{CM}	6	A
Power dissipation	P_{tot}	2	W
Operating and storage temperature range	T_j, T_{stg}	-55 to +150	$^\circ\text{C}$

FZT651

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	V(BR)CBO	I _C =100μA	80			V
Collector-emitter breakdown voltage *	V(BR)CEO	I _C =10mA	60			V
Emitter-base breakdown voltage	V(BR)EBO	I _E =100μA	5			V
Collector Cut-Off Current	I _{CBO}	V _{CB} =60V V _{CB} =60V, T _a = 100°C			0.1 10	μA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =4V			0.1	μA
Collector-emitter saturation voltage *	V _{CE(sat)}	I _C =1A, I _B =100mA I _C =3A, I _B =300mA		0.12 0.43	0.3 0.6	V
Base-emitter saturation voltage *	V _{BE(sat)}	I _C =1A, I _B =100mA		0.9	1.25	V
Base-Emitter Turn-On Voltage *	V _{BE(on)}	I _C =1A, V _{CE} =2V		0.8	1	V
Static Forward Current Transfer Ratio	h _{FE}	I _C =50mA, V _{CE} =2V*	70	200		
		I _C =500mA, V _{CE} =2V*	100	200	300	
		I _C =1A, V _{CE} =2V*	80	170		
		I _C =2A, V _{CE} =2V*	40	80		
Transitional frequency	f _T	I _C =100mA, V _{CE} =5V f=100MHz	140	175		MHz
Output capacitance	C _{obo}	V _{CB} =10V, f=1MHz			30	pF
Switching times	t _{on}	I _C =500mA, V _{CC} =10V, I _{B1} =I _{B2} =50mA		45		ns
	t _{off}			800		ns

* Pulse test: t_p = 300 μs; d ≤ 0.02.

■ Marking

Marking	FZT651
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