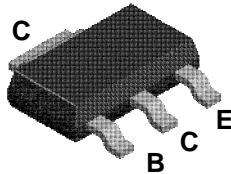


FZT790A



SOT-223

PNP Low Saturation Transistor

These devices are designed with high current gain and low saturation voltage with collector currents up to 3A continuous.

Absolute Maximum Ratings* T_A = 25°C unless otherwise noted

Symbol	Parameter	FZT790A	Units
V _{CEO}	Collector-Emitter Voltage	40	V
V _{CBO}	Collector-Base Voltage	50	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current - Continuous	3	A
T _J , T _{stg}	Operating and Storage Junction Temperature Range	-55 to +150	°C

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

NOTES:

- 1) These ratings are based on a maximum junction temperature of 150°C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Thermal Characteristics T_A = 25°C unless otherwise noted

Symbol	Characteristic	Max	Units
		FZT790A	
P _D	Total Device Dissipation	2	W
R _{θJA}	Thermal Resistance, Junction to Ambient	62.5	°C/W

PNP Low Saturation Transistor

(continued)

Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
OFF CHARACTERISTICS					
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = 10\text{ mA}$	40		V
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = 100\text{ }\mu\text{A}$	50		V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = 100\text{ }\mu\text{A}$	5		V
I_{CBO}	Collector Cutoff Current	$V_{CB} = 30\text{ V}$ $V_{CB} = 30\text{ V}, T_A = 100^\circ\text{C}$		100 10	nA μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 4\text{ V}$		100	nA
ON CHARACTERISTICS*					
h_{FE}	DC Current Gain	$I_C = 10\text{ mA}, V_{CE} = 2\text{ V}$ $I_C = 500\text{ mA}, V_{CE} = 2\text{ V}$ $I_C = 1\text{ A}, V_{CE} = 2\text{ V}$ $I_C = 2\text{ A}, V_{CE} = 2\text{ V}$	300 250 200 150	800	-
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 500\text{ mA}, I_B = 5\text{ mA}$ $I_C = 1\text{ A}, I_B = 10\text{ mA}$ $I_C = 2\text{ A}, I_B = 50\text{ mA}$		250 450 750	mV
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 1\text{ A}, I_B = 10\text{ mA}$		1	V
SMALL SIGNAL CHARACTERISTICS					
f_T	Transition Frequency	$I_C = 50\text{ mA}, V_{CE} = 5\text{ V}, f = 50\text{ MHz}$	100		-

*Pulse Test: Pulse Width $\leq 300\text{ }\mu\text{s}$, Duty Cycle $\leq 2.0\%$