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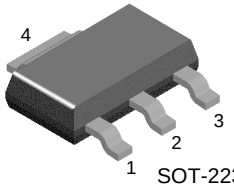
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FAIRCHILD
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NZT753

PNP Current Driver Transistor

- This device is designed for power amplifier, regulator and switching circuits where speed is important. Sourced from Process 5P.



SOT-223

1. Base 2. Collector 3. Emitter

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

Symbol	Parameter	Value	Units
V_{CEO}	Collector-Emitter Voltage	- 100	V
V_{CBO}	Collector-Base Voltage	- 120	V
V_{EBO}	Emitter-Base Voltage	- 5.0	V
I_C	Collector Current - Continuous	- 4.0	A
T_J, T_{STG}	Operating and Storage Junction Temperature Range	- 55 ~ +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.

Electrical Characteristics T_A=25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min.	Max.	Units
Off Characteristics					
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C = -10mA, I_B = 0	-100		V
BV_{CBO}	Collector-Base Breakdown Voltage	I_C = -100µA, I_E = 0	-120		V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E = -100µA, I_C = 0	-5.0		V
I_{CBO}	Collector-Base Cutoff Current	V_{CB} = -100V, I_E = 0 T_A = 100°C		-0.1 -10	µA µA
I_{EBO}	Emitter-Base Cutoff Current	V_{EB} = -4V, I_C = 0		-0.1	µA
On Characteristics *					
h_{FE}	DC Current Gain	V_{CE} = -2.0V, I_C = -50mA V_{CE} = -2.0V, I_C = -500mA V_{CE} = -2.0V, I_C = -1.0A	70 100 55	 300 	
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C = -1.0A, I_C = -50mA		-0.3	V
V_{BE}(sat)	Base-Emitter Saturation Voltage	I_C = -1.0A, I_B = -100mA		-1.25	V
V_{BE}(on)	Base-Emitter On Voltage	V_{CE} = -2.0V, I_C = -1.0A,		-1.0	V
Small Signal Characteristics					
f_T	Transition Frequency	V_{CE} = -5V, I_C = -100mA, f = 100MHz	75		MHz

*Pulse Test: Pulse Width ≤ 300µs, Duty Cycle ≤ 2.0%

Thermal Characteristics * T_A=25°C unless otherwise noted

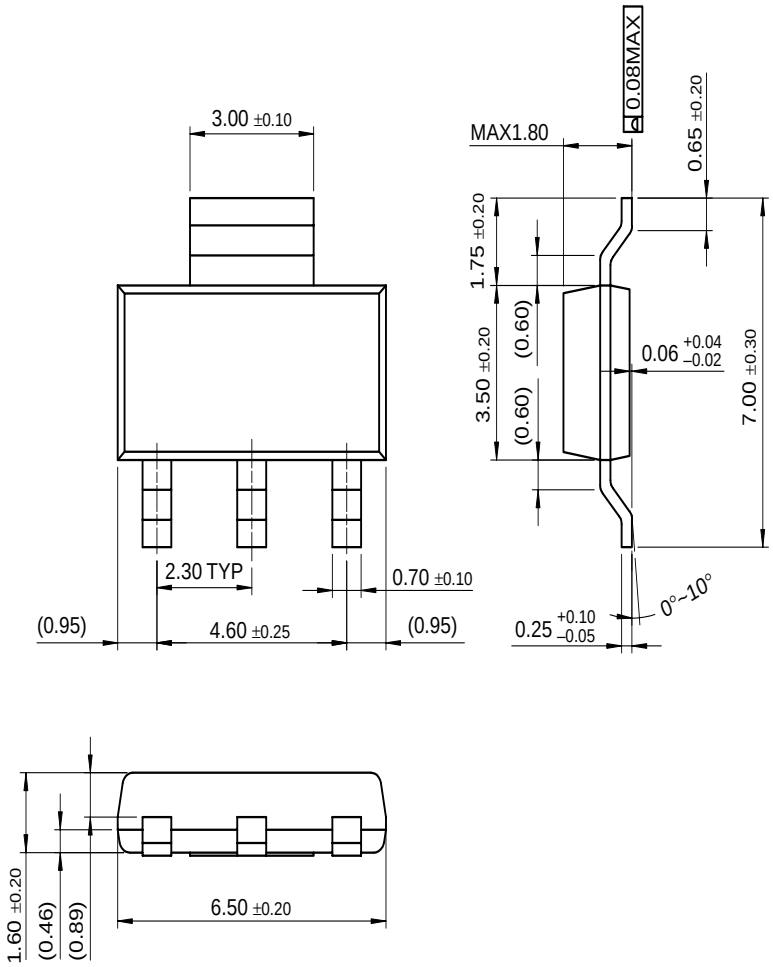
Symbol	Parameter	Max.	Units
P_D	Total Device Dissipation Derate above 25C	1.2 9.7	W mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	103	°C/W

* Device mounted on FR-4 PCB 36mm × 18mm × 1.5mm; mounting pad for the collector lead min 6cm^2.

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Package Dimensions

SOT-223



Dimensions in Millimeters

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