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Fairchild Semiconductor
NZT6727

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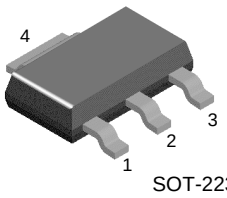
FAIRCHILD SEMICONDUCTOR®

NZT6727

PNP General Purpose Amplifier

- This device is designed for general purpose medium power amplifiers and switches requiring collecor currents to 1.0A.
- Sourced from process 77.



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	-40	V
V_{CBO}	Collector-Base Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5.0	V
I_C	Collector Current - Continuous	-1.5	A
T_J, T_{STG}	Operating and Storage Junction Temperature Range	- 55 ~ 150	°C

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

NOTES:
1. These ratings are based on a maximum junction temperature of 150 degrees 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 Condition	Min.	Max.	Units
Off Characteristics					
$V_{(BR)CEO}$	Collector-Emitter Sustaining Voltage *	I_C = -10mA, I_B = 0	-40		V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C = -1.0mA, I_E = 0	-50		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E = -100µA, I_C = 0	-5.0		V
I_{CBO}	Collector Cutoff Current	V_{CB} = -50V, I_E = 0		-0.1	µA
I_{EBO}	Emitter Cut-off Current	V_{EB} = -5.0V, I_C = 0		-0.1	µA
On Characteristics					
h_{FE}	DC Current Gain	I_C = -10mA, V_{CE} = -1.0V I_C = -100mA, V_{CE} = -1.0 I_C = -1.0A, V_{CE} = -1.0V	55 60 50	 250	
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C = -1.0A, I_B = -100mA		-0.5	V
V_{BE}(on)	Base-Emitter On Voltage	I_C = -1.0A, V_{CE} = -1.0V		-1.2	V
Small Signal Characteristics					
h_{fe}	Small Signal current Gain	I_C = -50mA, V_{CE} = -10V, f = 20MHz	2.5	25	
C_{cb}	Collector-Base Capacitance	V_{CB} = -10V, I_E = 0, f = 1.0MHz		30	pF

* Pulse Test: Pulse Width ≤ 300µs, Duty Cycle ≤ 1.0%

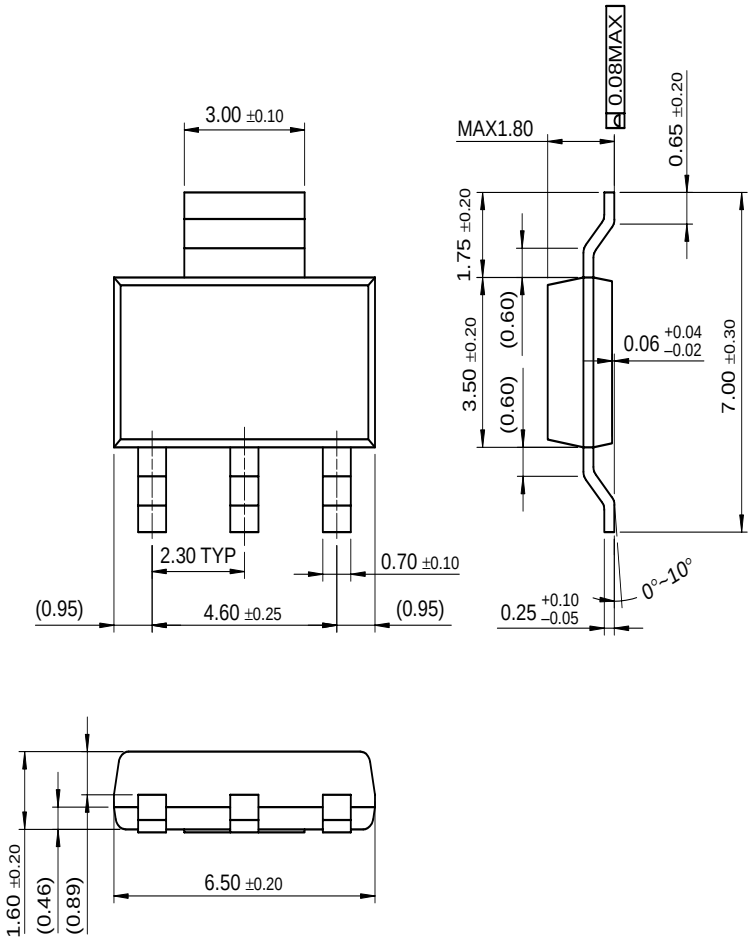
Thermal Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Max.	Units
P_D	Total Device Dissipation Derate above 25°C	1.0 8.0	W mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	125	°C/W

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

Package Dimensions

SOT-223



Dimensions in Millimeters

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EcoSPARK™	HiSeC™	MSXPro™	RapidConfigure™	UHC™
E²CMOS™	I²C™	OCX™	RapidConnect™	UltraFET®
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