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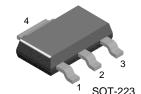
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NZT753

PNP Current Driver Transistor

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



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

Symbol	Parameter	Test Conditions	Min.	Max.	Units
Off Charac	teristics	·			
BV _{CEO}	Collector-Emitter Breakdown Voltage	I _C = -10mA, I _B = 0	-100		V
BV _{CBO}	Collector-Base Breakdown Voltage	$I_{C} = -100\mu A, I_{E} = 0$	-120		V
BV _{EBO}	Emitter-Base Breakdown Voltage	$I_E = -100\mu A, I_C = 0$	-5.0		V
I _{CBO}	Collector-Base Cutoff Current	V _{CB} = -100V, I _E = 0		-0.1	μΑ
		T _A = 100°C		-10	μΑ
I _{EBO}	Emitter-Base Cutoff Current	$V_{EB} = -4V, I_{C} = 0$		-0.1	μΑ
On Charac	teristics *				
h _{FE}	DC Current Gain	$V_{CE} = -2.0V, I_{C} = -50mA$	70		
		$V_{CE} = -2.0V, I_{C} = -500mA$	100	300	
		$V_{CE} = -2.0V, I_{C} = -1.0A$	55		
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 Sign	al Characteristics	•	•	•	-
f _T	Transition Frequency	V _{CE} = -5V, I _C = -100mA, f = 100MHz	75		MHz
Pulse Test: Pul	se Width ≤ 300us. Duty Cycle ≤ 2.0%		_		

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

Thermal Characteristics * T_A=25°C unless otherwise noted

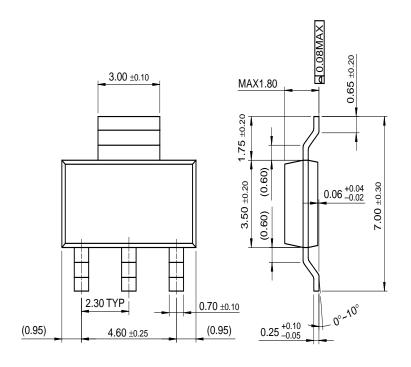
Symbol	Parameter	Max.	Units
P _D	Total Device Dissipation	1.2	W
	Derate above 25C	9.7	mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	103	°C/W

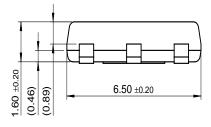
* Device mounted on FR-4 PCB 36mm × 18mm × 1.5mm; mounting pad for the collector lead min 6cm².

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Package Dimensions

SOT-223





Dimensions in Millimeters

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