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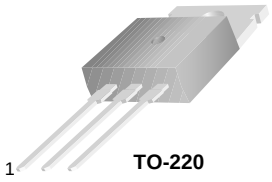
January 2010

D45C11
PNP Current Driver Transistor

Features

- This device is designed for power amplifier, regulator and switching circuits where speed is important.
- Sourced from Process 5P.
- NZT751 for characteristics.



TO-220

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	-80	V
I_C	Collector Current - Continuous	-4.0	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 degrees 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	Parameter	Max.	Units
P_D	Total Device Dissipation Derate above 25°C	60 480	W mW/°C
$R_{\theta JC}$	Thermal Resistance, Junction to Case	2.1	°C/W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	62.5	°C/W

Electrical Characteristics T_A=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
Off Characteristics					
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C = -100mA, I_B = 0	-80		V
I_{CES}	Collector-Cutoff Current	V_{CE} = -90V, I_E = 0		-10	μA
I_{EBO}	Emitter-Cutoff Current	V_{EB} = -5.0V, I_B = 0		-100	μA
On Characteristics					
h_{FE}	DC Current Gain	V_{CE} = -1.0V, I_C = -0.2A V_{CE} = -1.0V, I_C = -1.0A	40 20	120	
$V_{CE\ (sat)}$	Collector-Emitter Saturation Voltage	I_C = -1.0A, I_B = -50mA		-0.5	V
$V_{BE\ (sat)}$	Base-Emitter Saturation Voltage	I_C = -1.0A, I_B = -100mA		-1.3	V
Small Signal Characteristics					
C_{ob}	Output Capacitance	V_{CB} = -10V, f = 1.0MHz		125	pF
f_T	Current Gain - Bandwidth Product	I_C = -20mA, V_{CE} = -4.0V	32		MHz

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