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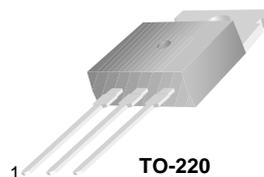
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# D45C11

## 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\* $T_A = 25^\circ\text{C}$ 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	$^\circ\text{C}$

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

Symbol	Parameter	Max.	Units
$P_D$	Total Device Dissipation Derate above $25^\circ\text{C}$	60 480	W $\text{mW}/^\circ\text{C}$
$R_{\theta JC}$	Thermal Resistance, Junction to Case	2.1	$^\circ\text{C}/\text{W}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	62.5	$^\circ\text{C}/\text{W}$

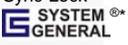
**Electrical Characteristics**  $T_A=25^\circ\text{C}$  unless otherwise noted

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



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