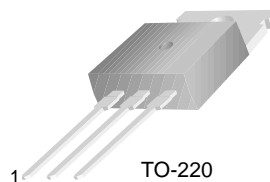


D45C8

PNP Current Driver Transistor

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



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	-60	V
I_C	Collector Current - Continuous	-4.0	A
T_J, T_{STG}	Operating and Storage Junction Temperature Range	- 55 ~ 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 150degrees C.
2. These re steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
Off Characteristics						
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -100\text{mA}, I_B = 0$	-60			V
I_{CES}	Collector Cut-off Current	$V_{CB} = -70\text{V}, I_E = 0$			-10	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = -5\text{V}, I_C = 0$			-100	μA
I_{CEO}	Collector Cut-off Current	$V_{CE} = -55\text{V}, I_B = 0$			-100	μA
On Characteristics						
h_{FE}	DC Current Gain	$V_{CE} = -1\text{V}, I_C = -0.2\text{A}$ $V_{CE} = -1\text{V}, I_C = -2\text{A}$	40 20		120	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -1\text{A}, I_B = -50\text{mA}$ $I_C = -2\text{A}, I_B = -0.3\text{A}$			-0.5 -1.2	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -1\text{A}, I_B = -100\text{mA}$			-1.3	V
Small Signal Characteristics						
f_T	Current Gain Bandwidth Product	$V_{CE} = -4\text{V}, I_C = -20\text{mA}$	32			MHz
C_{ob}	Output Capacitance	$V_{CB} = -10\text{V}, f = 1\text{MHz}$			125	pF

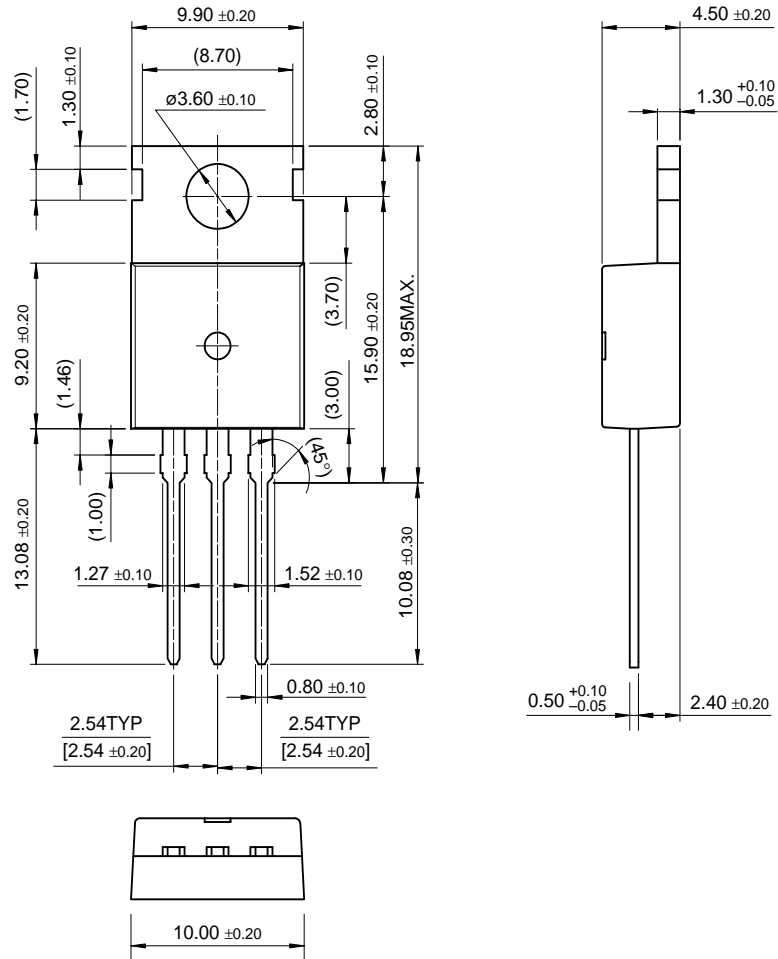
Thermal Characteristics $T_A=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Max.	Units
P_D	Total Device Dissipation Derate above 25°C	40 0.32	W $\text{W}/^\circ\text{C}$
$R_{\theta JC}$	Thermal Resistance, Junction to Case	3.1	$^\circ\text{C}/\text{W}$

Package Dimensions

D45C8

TO-220



Dimensions in Millimeters

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