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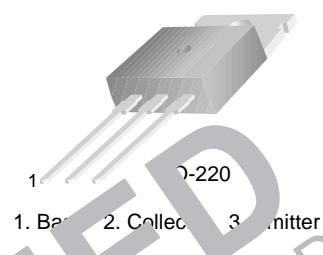
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**PNP Power Amplifier**

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



**Absolute Maximum Ratings**  $T_C=25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Value	Units
$V_{CEO}$	Collector-Emitter Voltage	30	V
$I_C$	Collector Current - Continuous	3.0	A
$T_J, T_{STG}$	Operating and Storage Junction Temperature Range	-55 ~ 150	°C

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
<b>Off Characteristics</b>						
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 100\text{mA}, I_B = 0$	30			V
$I_{CBO}$	Collector Cut-off Current	$V_{CE} = 60\text{V}, I_E = 0$			10	$\mu\text{A}$
$I_{EBO}$	Emitter Cut-off Current	$V_{EB} = 5\text{V}, I_C = 0$			100	$\mu\text{A}$
<b>On Characteristics</b>						
$h_{FE}$	DC Current Gain	$V_{CE} = 5\text{V}, I_C = 8\text{A}$ $V_{CE} = 5\text{V}, I_C = 10\text{A}$ $V_{CE} = 5\text{V}, I_C = 12\text{A}$	100			
80						
65						
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 8\text{A}, I_B = 0.4\text{A}$			1	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 8\text{A}, I_B = 0.8\text{A}$			1.5	V
<b>Small Signal Characteristics</b>						
$f_T$	Current Gain Bandwidth Product	$V_{CE} = 10\text{V}, I_C = 500\text{mA}$	25			MHz

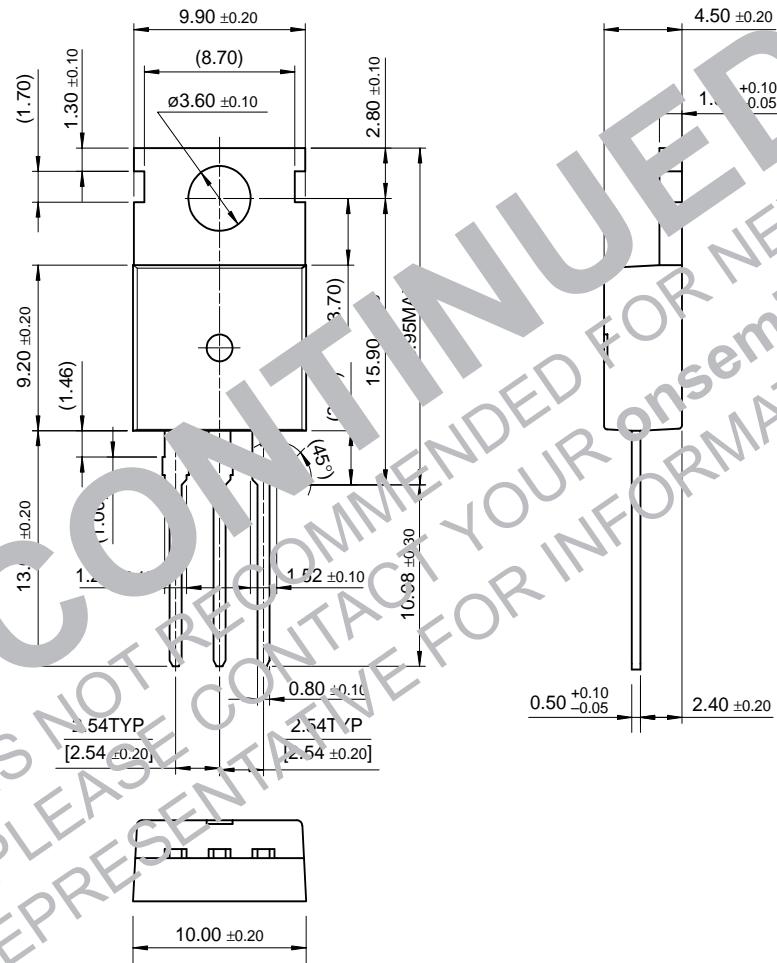
**Thermal Characteristics**  $T_A=25^\circ\text{C}$  unless otherwise noted

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

D45H2A

## Package Demensions

TO-220



Dimensions in Millimeters

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