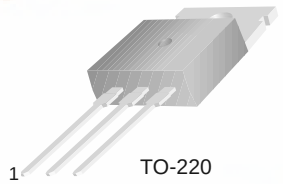
FAIRCHILD SEMICONDUCTOR®

D45H2A

PNP Power Amplifier

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



TO-220

1. Base 2. Collector 3. Emitter

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CEO}	Collector-Emitter Voltage	30	V
I_C	Collector Current - Continuous	8.0	A
T_J, T_{STG}	Operating and Storage Junction Temperature Range	- 55 ~ 150	°C

Electrical Characteristics T_C=25°C unless otherwise noted

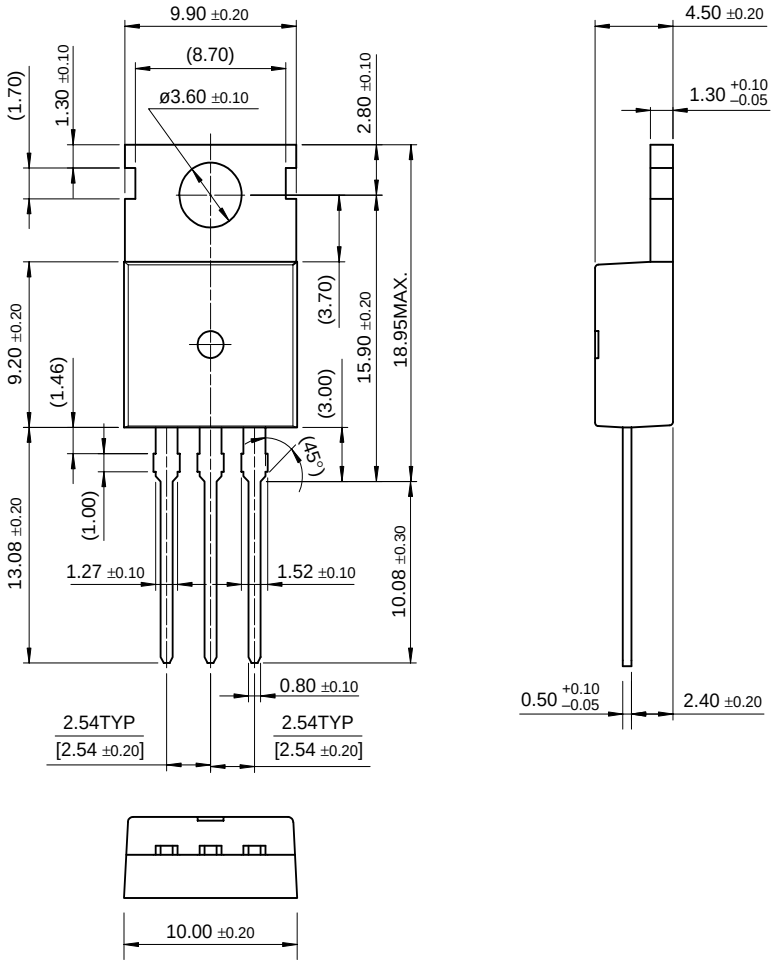
Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
Off Characteristics						
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C = 100mA, IB = 0	30			V
I_{CBO}	Collector Cut-off Current	V_{CB} = 60V, IE = 0			10	µA
I_{EBO}	Emitter Cut-off Current	V_{EB} = 5V, IC = 0			100	µA
On Characteristics		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

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

Package Demensions

TO-220



Dimensions in Millimeters

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DenseTrench™	GTO™	Power247™	SuperSOT™-6	
DOME™	HiSeC™	PowerTrench®	SuperSOT™-8	
EcoSPARK™	ISOPLANAR™	QFET™	SyncFET™	
E^2CMOS™	LittleFET™	QS™	TruTranslation™	
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Definition of Terms

Datasheet Identification	Product Status	Definition
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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