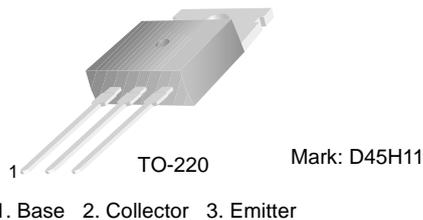


D45H11

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

Symbol	Parameter	Value	Units
V_{CEO}	Collector-Emitter Voltage	-80	V
I_C	Collector Current - Continuous	-10	A
T_J, T_{STG}	Operating and Storage Junction Temperature Range	-55 to +150	°C

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

Symbol	Parameter	Test Condition	Min.	Max.	Units
Off Characteristics					
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -100\text{mA}, I_B = 0$	-80		V
I_{CBO}	Collector-Cutoff Current	$V_{CB} = -80\text{V}, I_E = 0$		-10	μA
I_{EBO}	Emitter-Cutoff Current	$V_{EB} = -5\text{V}, I_C = 0$		-100	μA
On Characteristics *					
h_{FE}	DC Current Gain	$V_{CE} = -1\text{V}, I_C = -2\text{A}$ $V_{CE} = -1\text{V}, I_C = -4\text{A}$	60 40		
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -8\text{A}, I_B = -0.4\text{A}$		-1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -8\text{A}, I_B = -0.8\text{A}$		-1.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	$V_{CE} = -2\text{V}, I_C = -10\text{mA}$	-0.54	-0.65	V
Small Signal Characteristics					
f_T	Current Gain Bandwidth Product	$I_C = -500\text{mA}, V_{CE} = -10\text{V}$	40		MHZ

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

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

* Note) Device mounted on FR-4 PCB 36mm*18mm*1.5mm: Mounting pad for the collector lead min. 6cm2.



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