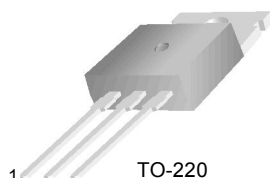


D44C8

NPN Power Amplifier

- Sourced from process 4P.



TO-220
1. Base 2. Collector 3. Emitter

Absolute Maximum Ratings T_a = 25°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 to +150	°C

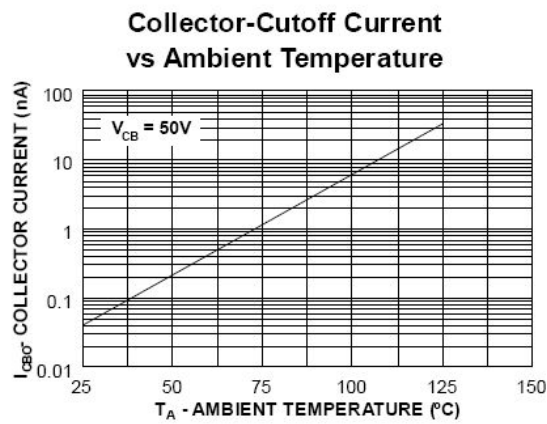
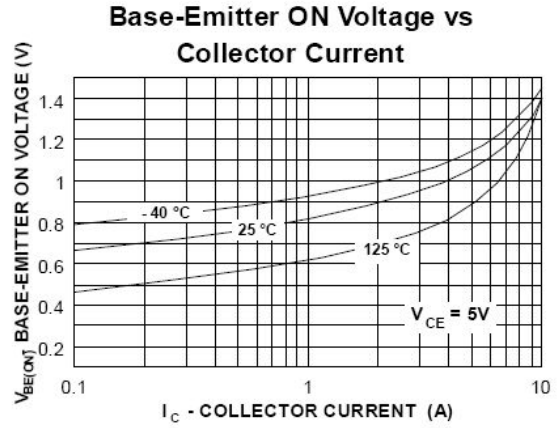
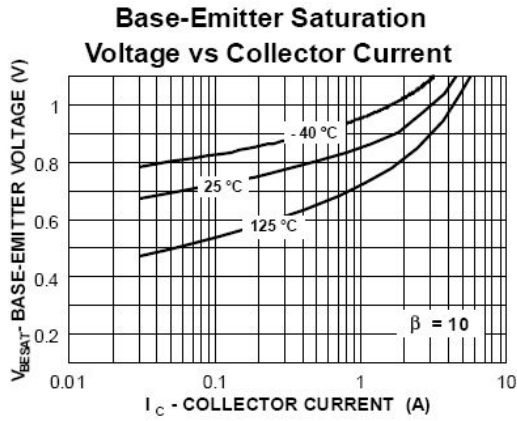
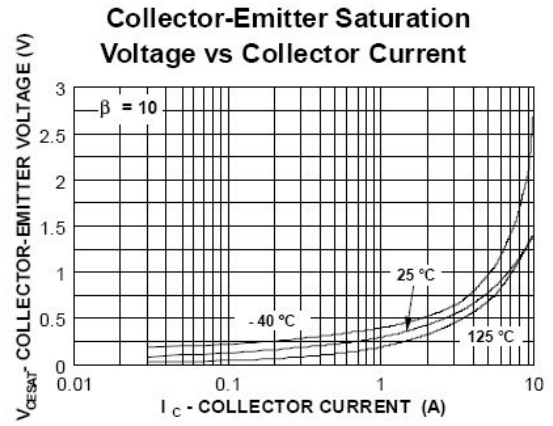
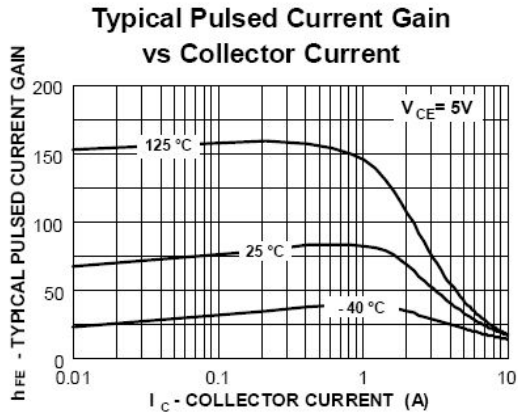
Electrical Characteristics T_a = 25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
Off Characteristics						
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 100mA, I _B = 0	60			V
I _{CES}	Collector-Emitter-(Base)Short	V _{CE} = 70V, I _E = 0			10	μA
I _{EBO}	Emitter-Cutoff Current	V _{EB} = 5.0V, I _B = 0			100	μA
On Characteristics *						
h _{FE}	DC Current Gain	V _{CE} = 1V, I _C = 0.2A V _{CE} = 1V, I _C = 2.0A	40 20		120	
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 1.0A, I _B = 50mA			0.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 1.0A, I _B = 100mA			1.3	V
Small Signal Characteristics						
C _{ob}	Output Capacitance	V _{CB} = 10V, f = 1.0MHz			100	pF
f _T	Current Gain Bandwidth Product	I _C = 20mA, V _{CE} = 4.0V			40	pF
t _{ON}	t _d , Delay Time t _r , Rise Time	I _C = 1.0A, I _{B1} = I _{B2} = 0.1A, V _{CC} = 30V, t _p = 25μs		54 490		ns
t _{OFF}	t _s , Storage Time t _f , Fall Time			636 59		ns

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 _{θJC}	Thermal Resistance, Junction to Case	2.1	°C/W
R _{θJA}	Thermal Resistance, Junction to Ambient	62.5	°C/W

Typical Performance Characteristics





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