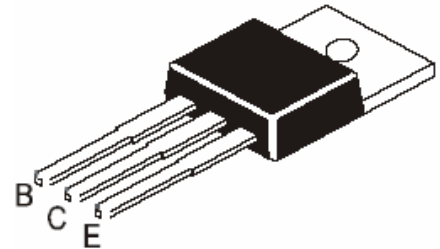


Power Transistor (NPN)

Features

- Application for Switching Regulators, Converters and Power Amplifiers
- Very low collector saturation voltage
- RoHS Compliant



TO-220



Mechanical Data

Case:	TO-220, Plastic Package
Terminals:	Solderable per MIL-STD-202, Method 208
Weight:	0.08 ounces, 2.24 grams

Maximum Ratings *(T_{Ambient}=25°C unless noted otherwise)*

Symbol	Description	D44H11	Unit
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current Continuous	10	A
I_{CM}	Collector Current Peak (NOTE 1)	20	A
P_D	Total Power Dissipation at T _C =25°C	50	W
	Total Power Dissipation at T _A =25°C	1.67	W
R_{θJC}	Thermal Resistance from Junction to Case	2.5	° C /W
R_{θJA}	Thermal Resistance from Junction to Ambient	75	° C /W
T_L	Maximum Lead Temperature for Soldering Purpose 1/8" From Case for 5 seconds	275	° C
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-55 to +150	° C

NOTE 1: Pulse Width ≤ 6ms, Duty Cycle ≤ 50%

Power Transistor (NPN)

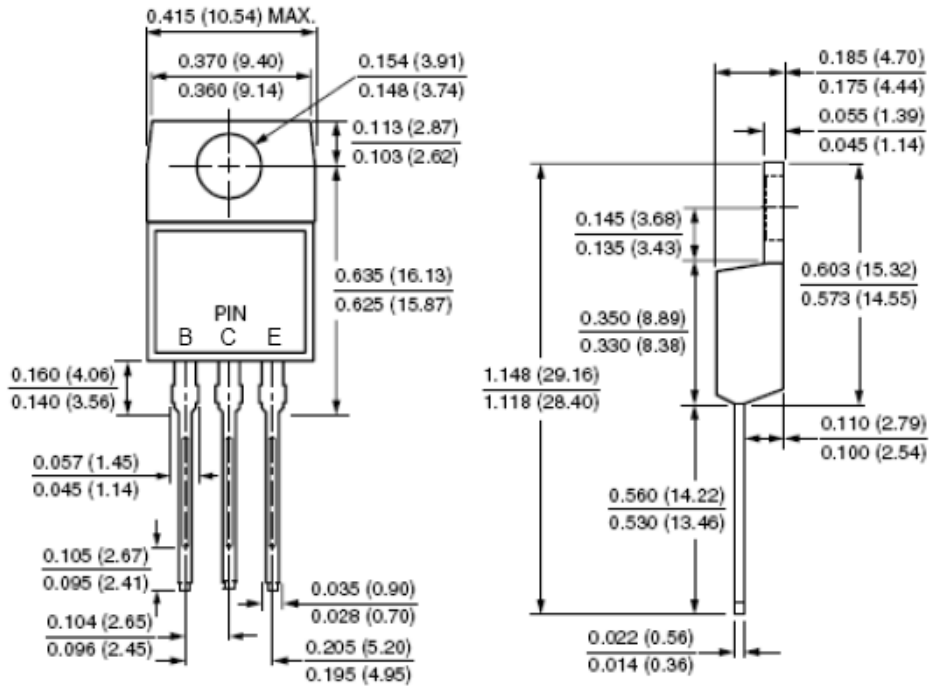
D44H11

Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	Min.	Typ.	Max.	Unit	Conditions
hFE	D.C. Current Gain	60	-	-		$V_{CE}=1.0V, I_C=2.0A$
		35	-	-		$V_{CE}=1.0V, I_C=4.0A$
V_{CE(sat)}	Collector-Emitter Saturation Voltage	-	-	1.85	V	$I_C=8.0A, I_B=400mA$
V_{BE(sat)}	Base-Emitter Saturation Voltage	-	-	1.5	V	$I_C=8.0A, I_B=800mA$
I_{CES}	Collector-Emitter Cut-off Current	-	-	10	μA	$V_{CE}=\text{Rated } V_{CEO}, V_{BE}=0$
I_{EBO}	Emitter-Base Cut-off Current	-	-	100	μA	$V_{BE}=5V, I_C=0$
f_T	Current-Gain Bandwidth Product	-	50	-	MHz	$V_{CE}=10V, I_C=0.5A, f=20MHz$
C_{ob}	Output Capacitance	-	130	-	pF	$V_{CB}=10V, f=1.0MHz$
t_{d+tr}	Delay and Rise Time	-	300	-	nS	$I_C=5.0A, I_B=500mA$
t_s	Storage Time	-	500	-	nS	$I_C=5.0A, I_B=I_{B2}=500mA$
t_f	Fall Time	-	140	-		$I_C=5.0A, I_B=I_{B2}=500mA$

Dimensions in inch (mm)

TO-220



Pin Configuration

- B. Base
- C. Collector
- E. Emitter

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