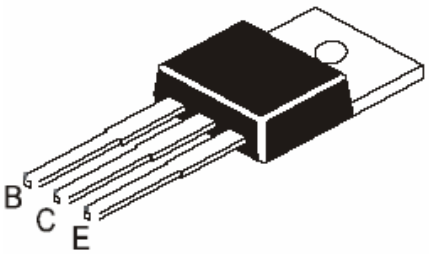
Power Transistor (PNP)



TO-220

RoHS Compliant

Features

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

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=25ºC unless noted otherwise)*

Symbol	Description	D45H11	Unit
V_{CEO}	Collector-Emitter Voltage	80	V
V_{CES}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current Continuous	10	A
I_{CM}	Collector Current Peak	20	A
I_B	Base Current	2	A
P_D	Total Power Dissipation at T_C=25°C	50	W
	Total Power Dissipation Derate above 25°C	0.4	W/° C
$R_{\theta JC}$	Thermal Resistance from Junction to Case	2.5	° C /W
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-55 to +150	° C

Electrical Characteristics *(T Ambient=25ºC unless noted otherwise)*

Symbol	Description	Min.	Max.	Unit	Conditions
*h_{FE}	D.C. Current Gain	60	-		V_{CE}=1.0V, I_C=2.0A
		40	-		V_{CE}=1.0V, I_C=4.0A
$V_{CEO(sus)}$	Collector-Emitter Sustaining Voltage	80	-	V	I_C=30mA, I_B=0
*$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	-	1.0	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}=80V, V_{BE}=0
I_{EBO}	Emitter-Base Cut-off Current	-	100	μA	V_{BE}=5V, I_C=0
f_T	Current-Gain Bandwidth Product	12	-	MHz	V_{CE}=10V, I_C=0.5A, f=0.5MHz, f_T=|hfe|·f test
C_{ob}	Output Capacitance	400	-	pF	V_{CB}=10V, I_E=0, f=1.0MHz,
t_r	Rise Time	-	0.6	μS	I_C=5.0A, I_{B1}=-I_{B2}=500mA
t_S	Storage Time	-	1.2		
t_f	Fall Time	-	0.5		

***Pulse Test: Pulse Width=300μs, Duty Cycle≤2%**

Typical Characteristics Curves

Fig.1- Power Derating

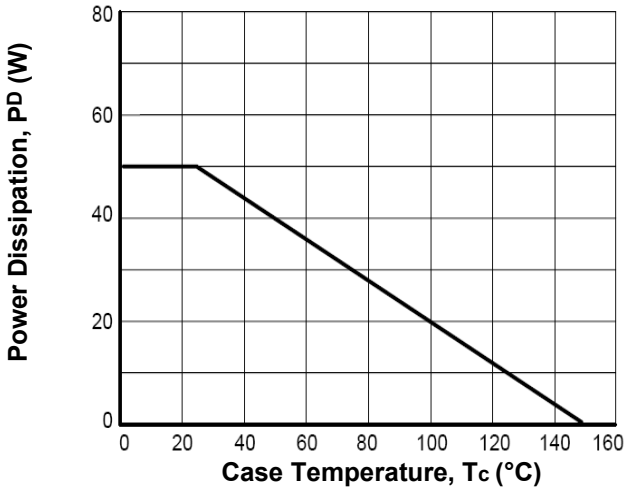


Fig.2-DC Current Gain

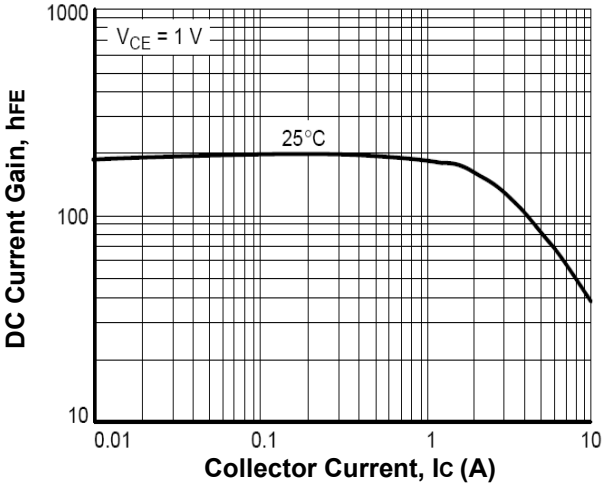


Fig.3- 'On' Voltages

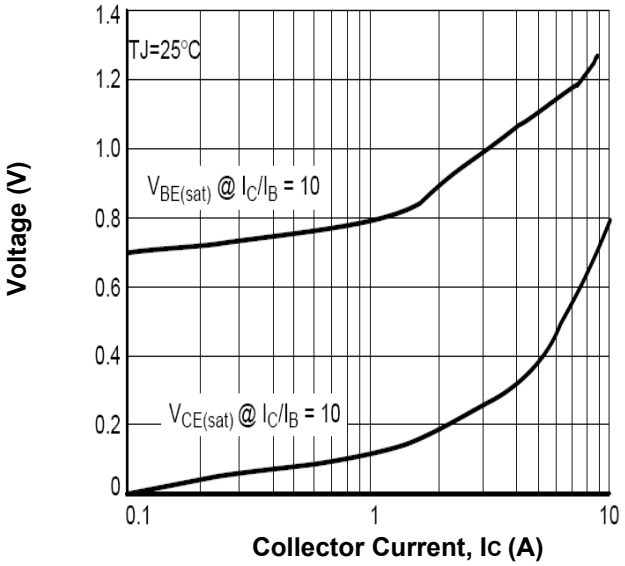
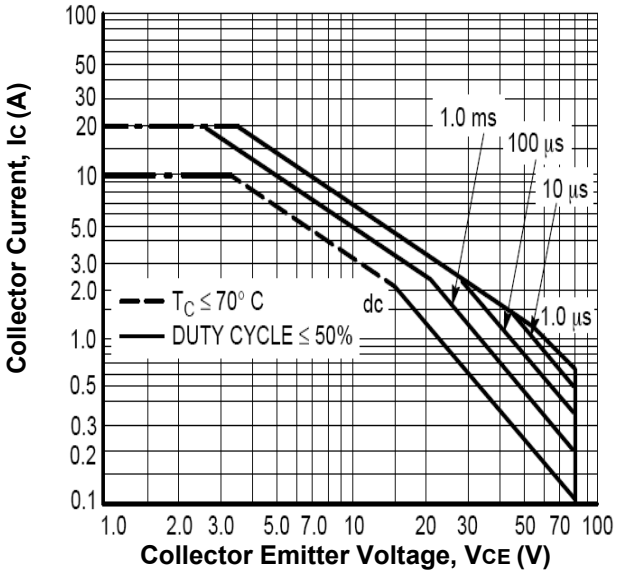
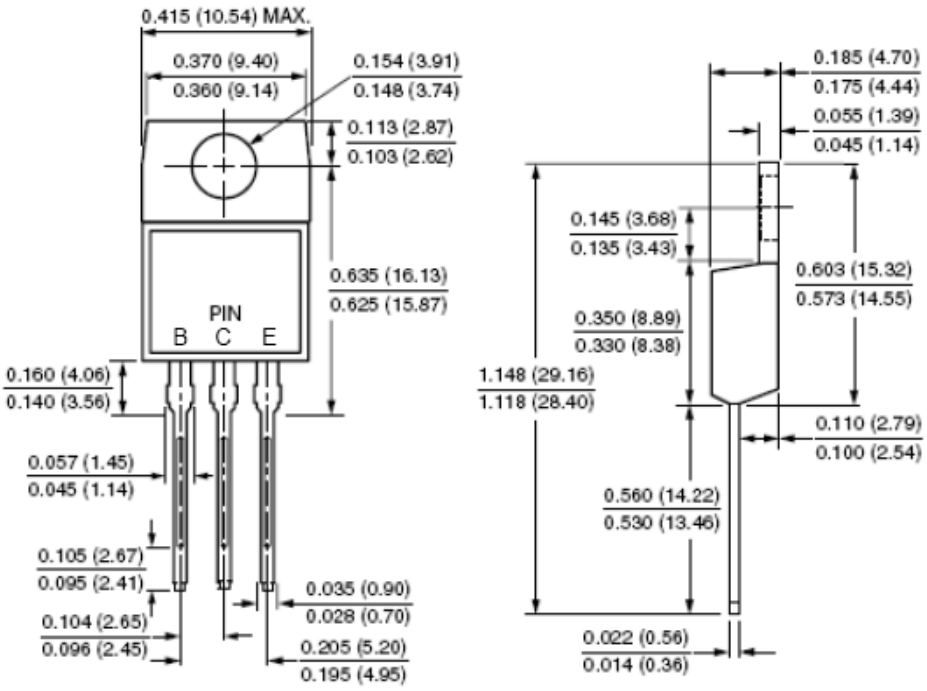


Fig.4- Forward Bias Safe Operating Area



Dimensions in inch (mm)

TO-220



Pin Configuration

B. Base
C. Collector
E. Emitter

How to contact us:

US HEADQUARTERS

28040 WEST HARRISON PARKWAY, VALENCIA, CA 91355-4162
Tel: (800) TAITRON (800) 824-8766 (661) 257-6060
Fax: (800) TAITFAX (800) 824-8329 (661) 257-6415
Email: taitron@taitroncomponents.com
Http://www.taitroncomponents.com

TAITRON COMPONENTS MEXICO, S.A .DE C.V.

BOULEVARD CENTRAL 5000 INTERIOR 5 PARQUE INDUSTRIAL ATITALAQUIA, HIDALGO C.P. 42970 MEXICO
Tel: +52-55-5560-1519
Fax: +52-55-5560-2190

TAITRON COMPONENTS INCORPORATED REPRESENTAÇÕES DO BRASIL LTDA

RUA DOMINGOS DE MORAIS, 2777, 2.ANDAR, SALA 24 SAÚDE - SÃO PAULO-SP 04035-001 BRAZIL
Tel: +55-11-5574-7949
Fax: +55-11-5572-0052

TAITRON COMPONENTS INCORPORATED, SHANGHAI REPRESENTATIVE OFFICE

METROBANK PLAZA, 1160 WEST YAN' AN ROAD, SUITE 1503, SHANGHAI, 200052, CHINA
Tel: +86-21-5424-9942
Fax: +86-21-5424-9931