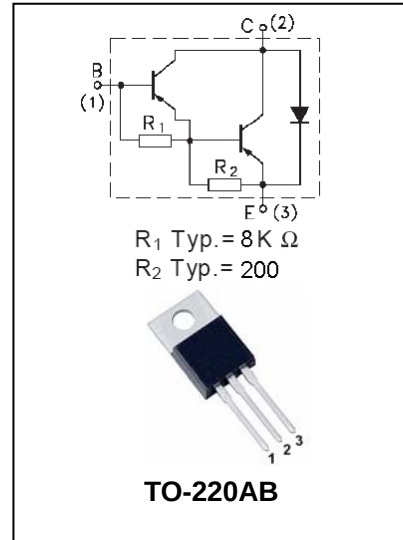


Medium Power Linear Switching Applications

TIP127

FEATURES

- Complementary to TIP122.



MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-100	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current DC Pulse	-5 -8	A
I_B	Base Current	-120	mA
P_C	Collector Dissipation $T_a=25^\circ\text{C}$ $T_c=25^\circ\text{C}$	2 65	W
T_j, T_{stg}	Junction and Storage Temperature	-65 to +150	$^\circ\text{C}$

Medium Power Linear Switching Applications

TIP127

ELECTRICAL CHARACTERISTICS Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-emitter Sustaining Voltage	$V_{CEO(SUS)}$	$I_C = -100mA, I_B = 0$	-120			V
Collector Cut-off Current	I_{CEO}	$V_{CE} = -50V, I_B = 0$			-2	mA
Collector Cut-off Current	I_{CBO}	$V_{CE} = -100V, V_{EB} = 0$			-1	mA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-2	mA
DC Current Gain	h_{FE}	$V_{CE} = -3V, I_C = -0.5A$ $V_{CE} = -3V, I_C = -3A$	1000 1000			
Collector-emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -3A, I_B = -12mA$ $I_C = -5A, I_B = -20mA$			-2 -4	V
Base-emitter on Voltage	$V_{BE(on)}$	$V_{CE} = -3V, I_C = -3A$			-2.5	V
Output Capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0,$ $f = 0.1MHz$			300	pF

Medium Power Linear Switching Applications

TIP127

TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

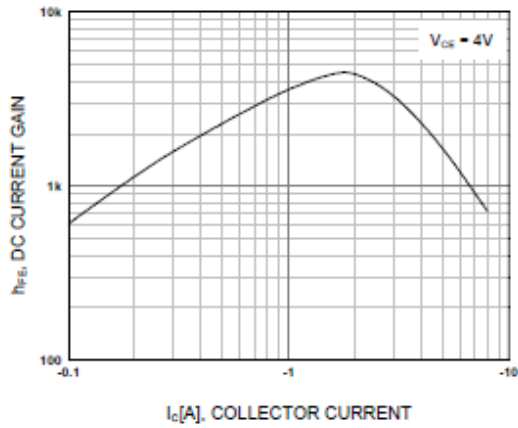


Figure 1. DC current Gain

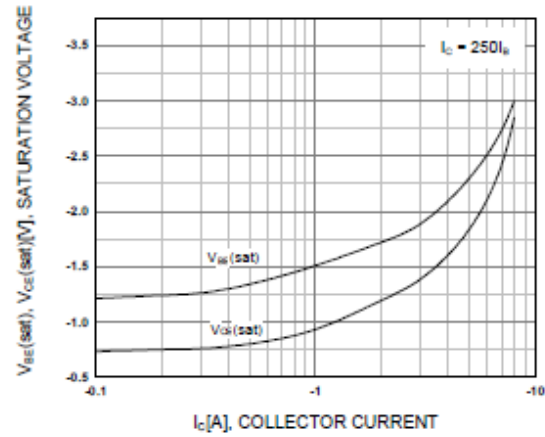


Figure 2. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

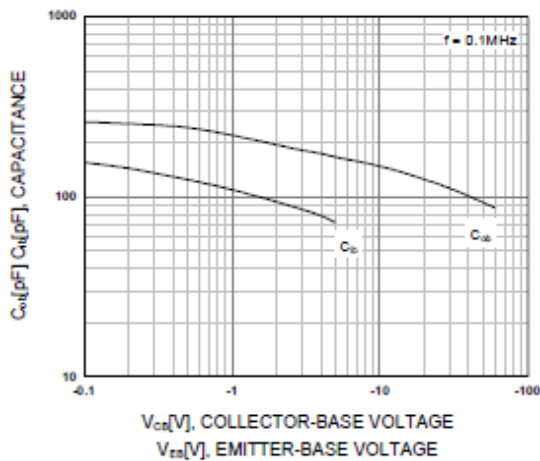


Figure 3. Output and Input Capacitance
vs. Reverse Voltage

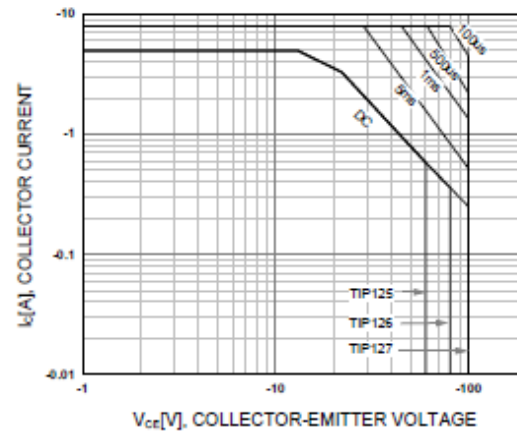


Figure 4. Safe Operating Area

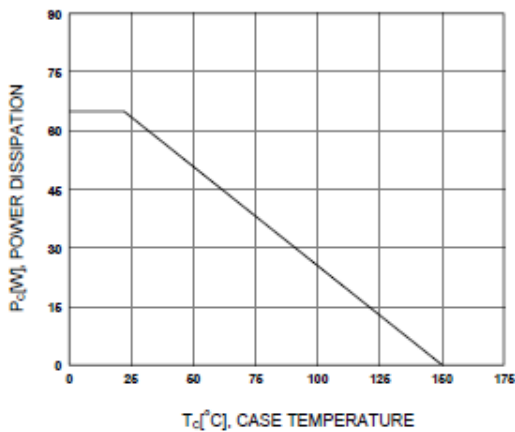


Figure 5. Power Derating

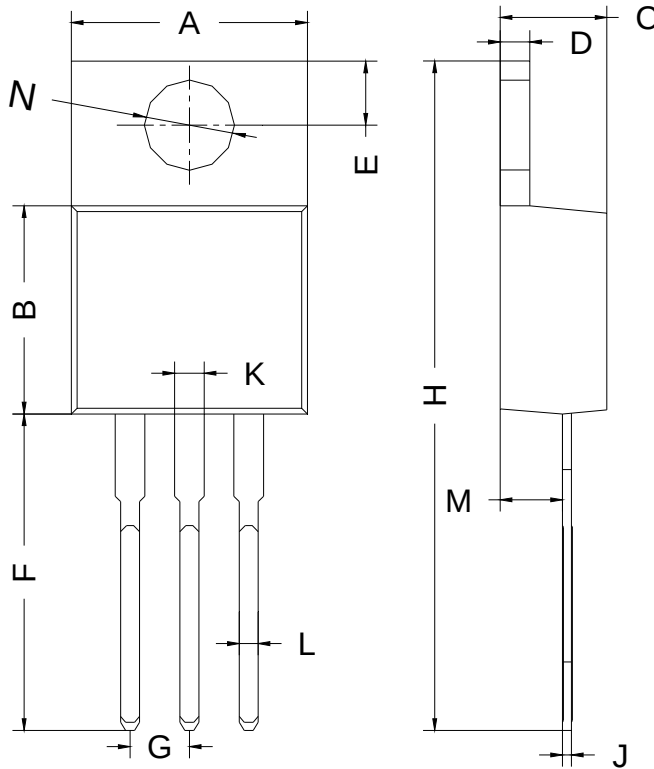
Medium Power Linear Switching Applications

TIP127

PACKAGE OUTLINE

Plastic surface mounted package

TO-220AB



TO-220AB		
Dim	Min	Max
A	9.80	10.30
B	8.70	9.10
C	4.57 Typical	
D	1.27 Typical	
E	2.64	2.84
F	13.14	13.74
G	2.44	2.64
H	28.03	28.83
J	0.38 Typical	
K	1.22	1.32
L	0.71	0.91
M	2.50 Typical	
N	3.86 Typical	
All Dimensions in mm		