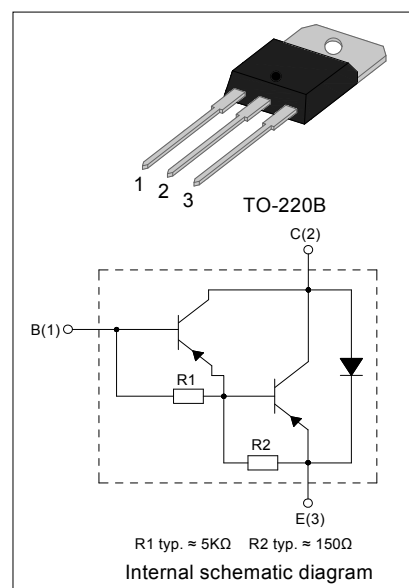


DESCRIPTION:

The TIP127 is a silicon PNP power transistor in monolithic darlington configuration, mounted in TO-220B plastic package. It is intended for use in power linear and switching applications.

MAIN FEATURES

Symbol	Value	Unit
I_C	-5	A
V_{CEO}	-100	V



ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage temperature range	T_{stg}	-60 to 150	°C
Max. operating junction temperature	T_j	150	°C
Collector-emitter voltage ($I_B=0$)	V_{CEO}	-100	V
Collector-base voltage ($I_E=0$)	V_{CBO}	-100	V
Emitter-base voltage ($I_C=0$)	V_{EBO}	-10	V
Collector current	I_C	-5	A
Collector peak current	I_{CM}	-8	A
Base current	I_B	-0.1	A
Total dissipation at $T_c \leq 25^\circ\text{C}$ $T_a \leq 25^\circ\text{C}$	P_{tot}	65 2	W

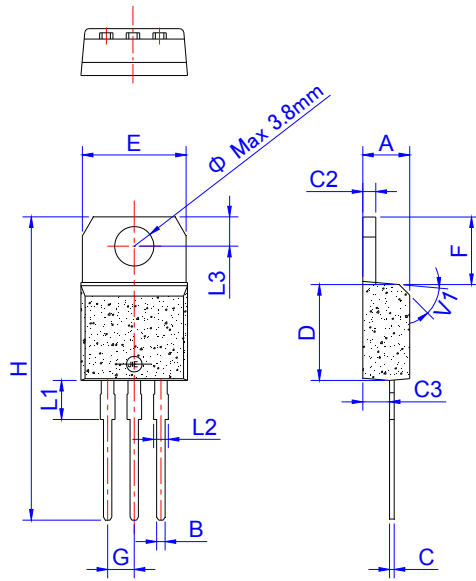
ELECTRICAL CHARACTERISTICS ($T_{case}=25^{\circ}C$ unless otherwise specified)

Symbol	Test Condition	Value			Unit
		MIN.	TYP.	MAX.	
I _{CEO}	I _B =0 V _{CE} =-100V	-	-	-2	mA
I _{CBO}	I _E =0 V _{CB} =-100V	-	-	-100	μA
I _{EBO}	I _C =0 V _{EB} =-5V	-	-	-2	mA
V _{CEO(SUS)} *	I _B =0 I _C =-30mA	-100	-	-	V
V _{CE(sat)} *	I _C =-3A I _B =-12mA	-	-	-1.5	V
	I _C =-5A I _B =-20mA			-3	
V _{BE} *	I _C =-3A V _{CE} =-3V	-	-	-2.5	V
h _{FE} *	I _C =-0.5A V _{CE} =-3V	1000	2500	5000	
	I _C =-3A V _{CE} =-3V	1000	-	-	
* Pulsed: pulse duration≤300μs, duty cycle≤2%					

THERMAL RESISTANCES

Symbol	Parameter	Value (Max.)	Unit
$R_{th(j-c)}$	junction to case	1.92	$^{\circ}C/W$
$R_{th(j-a)}$	junction to ambient	62.5	$^{\circ}C/W$

PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.40		4.60	0.173		0.181
B	0.61		0.88	0.024		0.035
C	0.40		0.60	0.016		0.024
C2	1.21		1.32	0.048		0.052
C3	2.40		2.72	0.094		0.107
D	8.60		9.70	0.339		0.382
E	9.60		10.4	0.378		0.409
F	6.20		6.60	0.244		0.260
G		2.54			0.1	
H	28.0		29.8	1.102		1.173
L1	3.40		3.80	0.134		0.150
L2	1.14		1.70	0.045		0.067
L3	2.65		2.95	0.104		0.116
V1		45°			45°	

FIG.1: Power derating curve

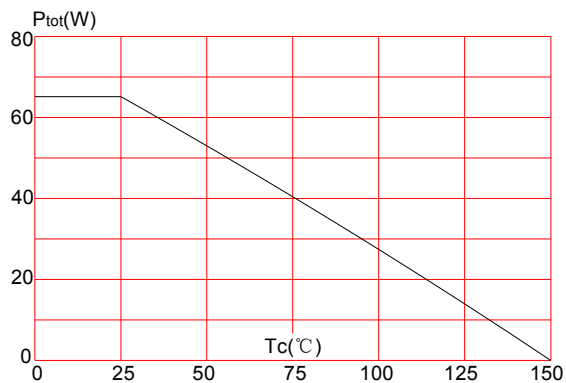


FIG.2: Safe operating areas

