



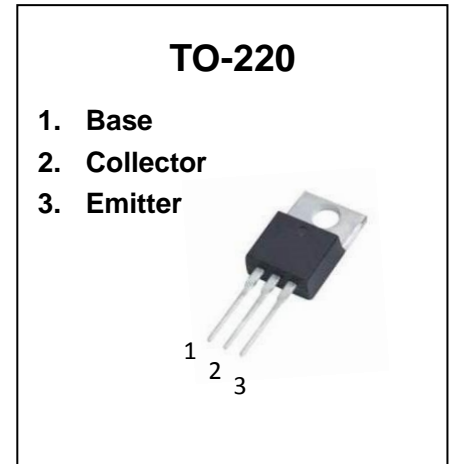
**TIP127 Darlington Transistor(PNP)**

**Feature**

- Medium Power Complementary Silicon Transistors

**MAXIMUM RATINGS ( $T_a=25^{\circ}\text{C}$  unless otherwise noted)**

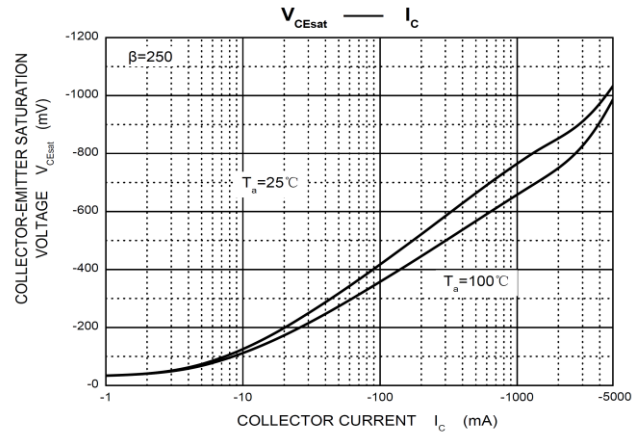
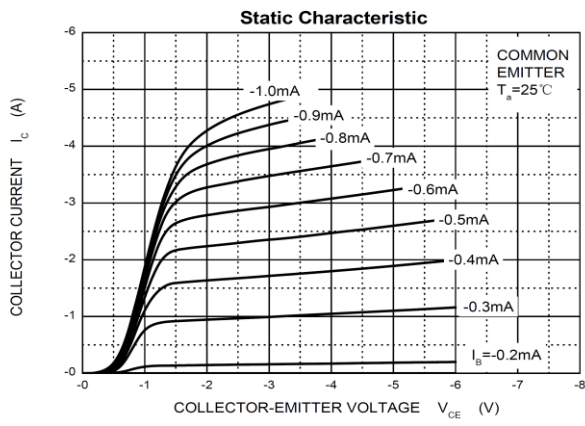
Parameter	Symbol	Value	Unit
Collector-Base Voltage	$V_{CBO}$	-100	V
Collector-Emitter Voltage	$V_{CEO}$	-100	V
Emitter-Base Voltage	$V_{EBO}$	-10	V
Junction Temperature	$T_J$	150	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-55~ +150	$^{\circ}\text{C}$



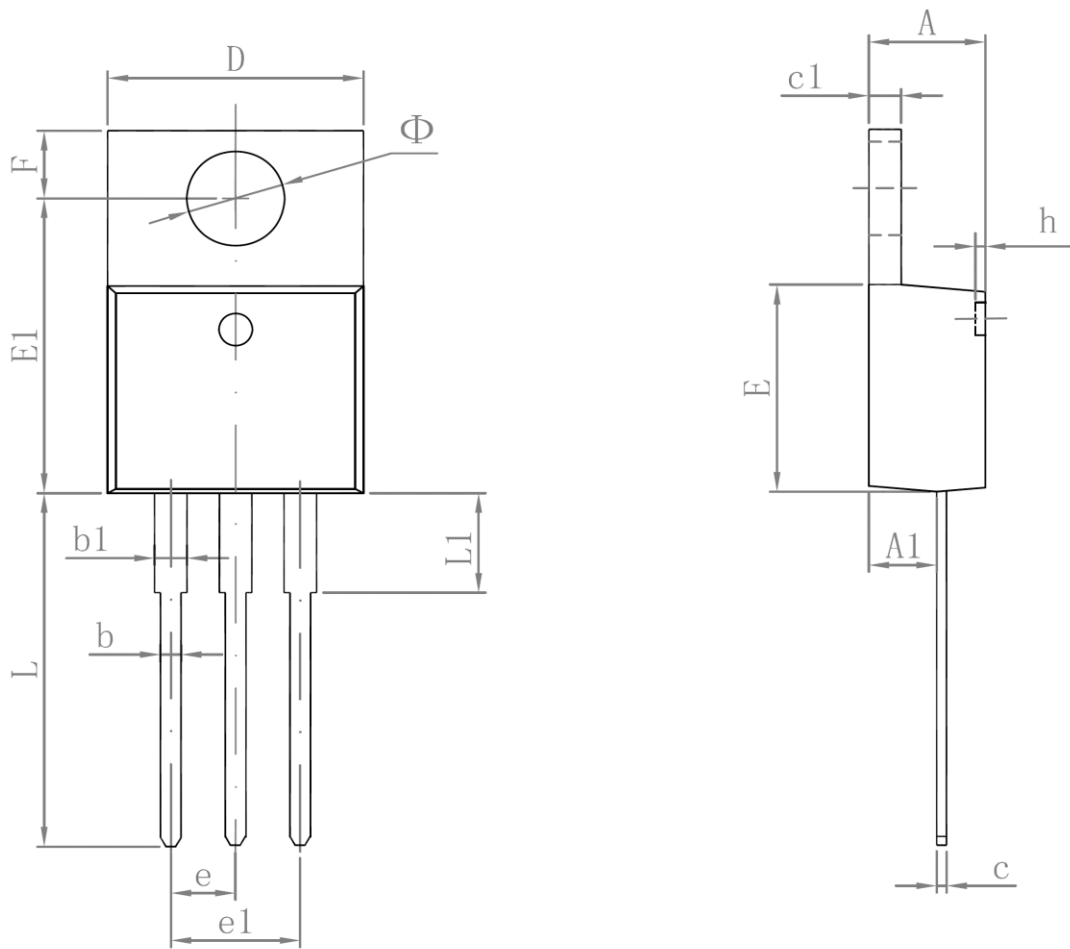
**ELECTRICAL CHARACTERISTICS( $T_a=25^{\circ}\text{C}$  unless otherwise noted)**

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V(BR)_{CBO}$	$I_C=-100\mu\text{A}, I_E=0$	-100	-180		V
Collector-emitter breakdown voltage	$V(BR)_{CEO}$	$I_C=-10\text{mA}, I_B=0$	-100	-160		V
Emitter-base breakdown voltage	$V(BR)_{EBO}$	$I_E=-2.5\text{mA}, I_C=0$	-10			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-100\text{V}, I_E=0$			-1	$\mu\text{A}$
Collector cut-off current	$I_{CEO}$	$V_{CE}=-100\text{V}, I_B=0$			-1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-10\text{V}, I_C=0$		-2.0	-2.5	mA
DC current gain	$h_{FE}$	$V_{CE}=-5\text{V}, I_C=-2\text{A}$	2000		15000	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-3\text{A}, I_B=-12\text{mA}$		-1.3	-2	V

Typical Characteristics



## TO-220 Package Information



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	4.470	4.670	0.176	0.184
A1	2.520	2.820	0.099	0.111
b	0.710	0.910	0.028	0.036
b1	1.170	1.370	0.046	0.054
c	0.310	0.530	0.012	0.021
c1	1.170	1.370	0.046	0.054
D	10.010	10.310	0.394	0.406
E	8.500	8.900	0.335	0.350
E1	12.060	12.460	0.475	0.491
e	2.540 TYP		0.100 TYP	
e1	4.980	5.180	0.196	0.204
F	2.590	2.890	0.102	0.114
h	0.000	0.300	0.000	0.012
L	13.400	13.800	0.528	0.543
L1	3.560	3.960	0.140	0.156
$\Phi$	3.735	3.935	0.147	0.155