

TIP127

Rev. H Oct.-2018

/ Descriptions

TO-220 PNP Silicon PNP transistor in a TO-220 Plastic Package.

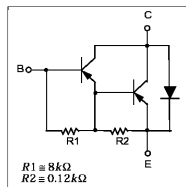
/ Features

TIP122
Complement to TIP122.

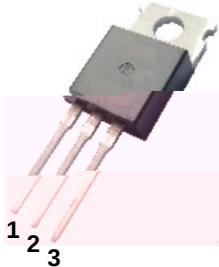
/ Applications

Medium power linear switching applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

See Marking Instructions.

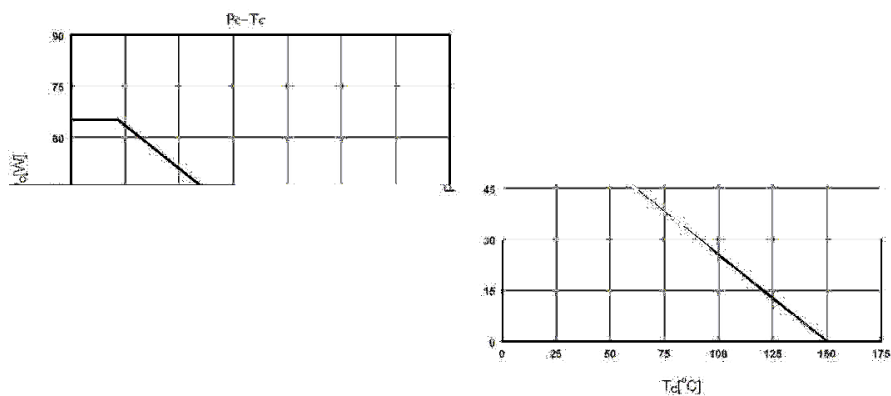
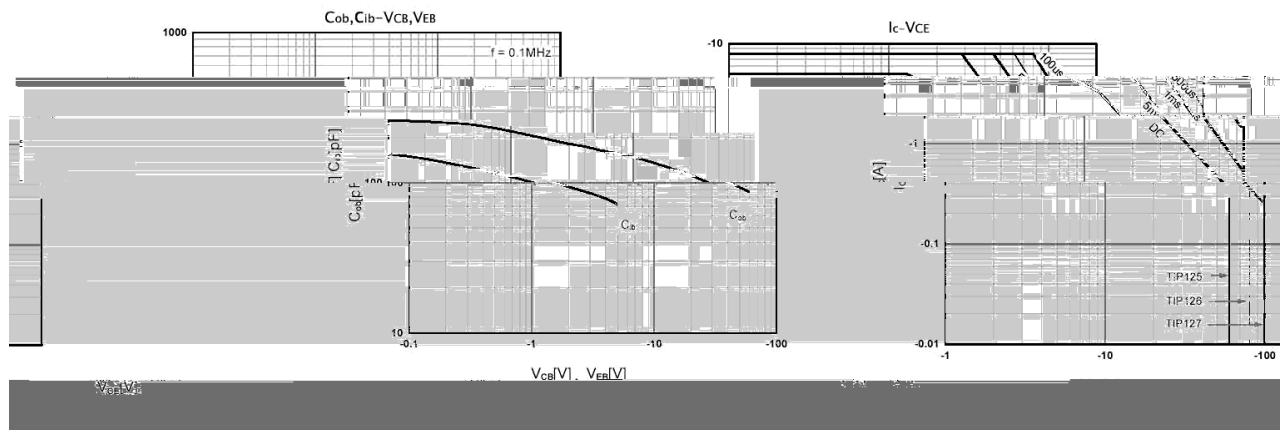
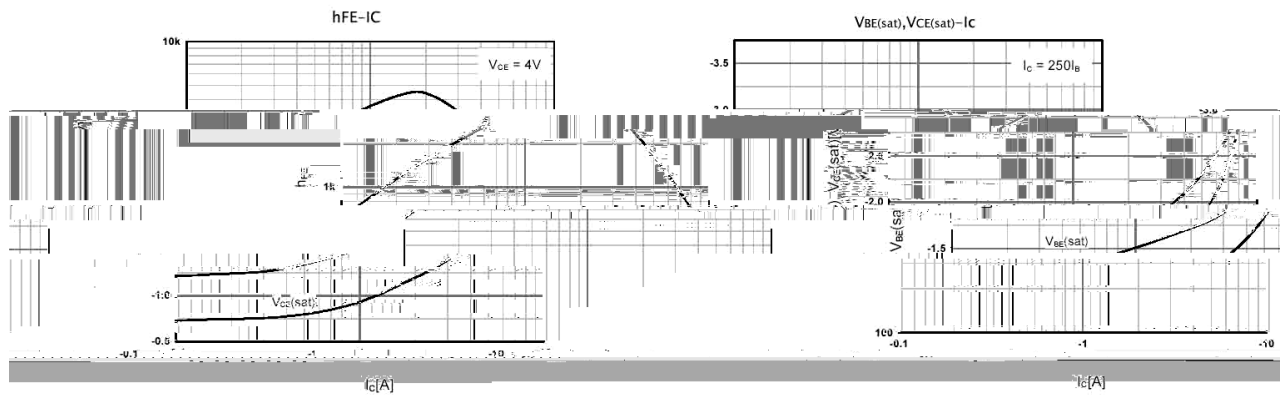
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-100	V
Collector to Emitter Voltage	V_{CEO}	-100	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current - Continuous	I_C	-5.0	A
Peak Collector Current	I_{CP}	-8.0	A
Base Current - Continuous	I_B	-120	mA
Collector Power Dissipation	P_C	2.0	W
	$P_C(T_c=25)$	65	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55~150	

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=-100mA$ $I_B=0$	-100			V
Collector Cut-Off Current	I_{CEO}	$V_{CE}=-50V$ $I_B=0$			-2.0	mA
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-100V$ $I_E=0$			-1.0	mA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=-5.0V$ $I_C=0$			-2.0	mA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-3.0V$ $I_C=-0.5A$	1000			
	$h_{FE(2)}$	$V_{CE}=-3.0V$ $I_C=-3.0A$	1000			
Collector to Emitter Saturation Voltage	$V_{CE(sat)(1)}$	$I_C=-3.0A$ $I_B=-12mA$			-2.0	V
	$V_{CE(sat)(2)}$	$I_C=-5.0A$ $I_B=-20mA$			-4.0	V
Base to Emitter Voltage	V_{BE}	$I_C=-3.0A$ $V_{CE}=-3.0V$			-2.5	V
Collector output capacitance	C_{ob}	$V_{CB}=-10V$ $I_E=0$ $f=0.1MHz$			300	pF

/ **Electrical Characteristic Curve**

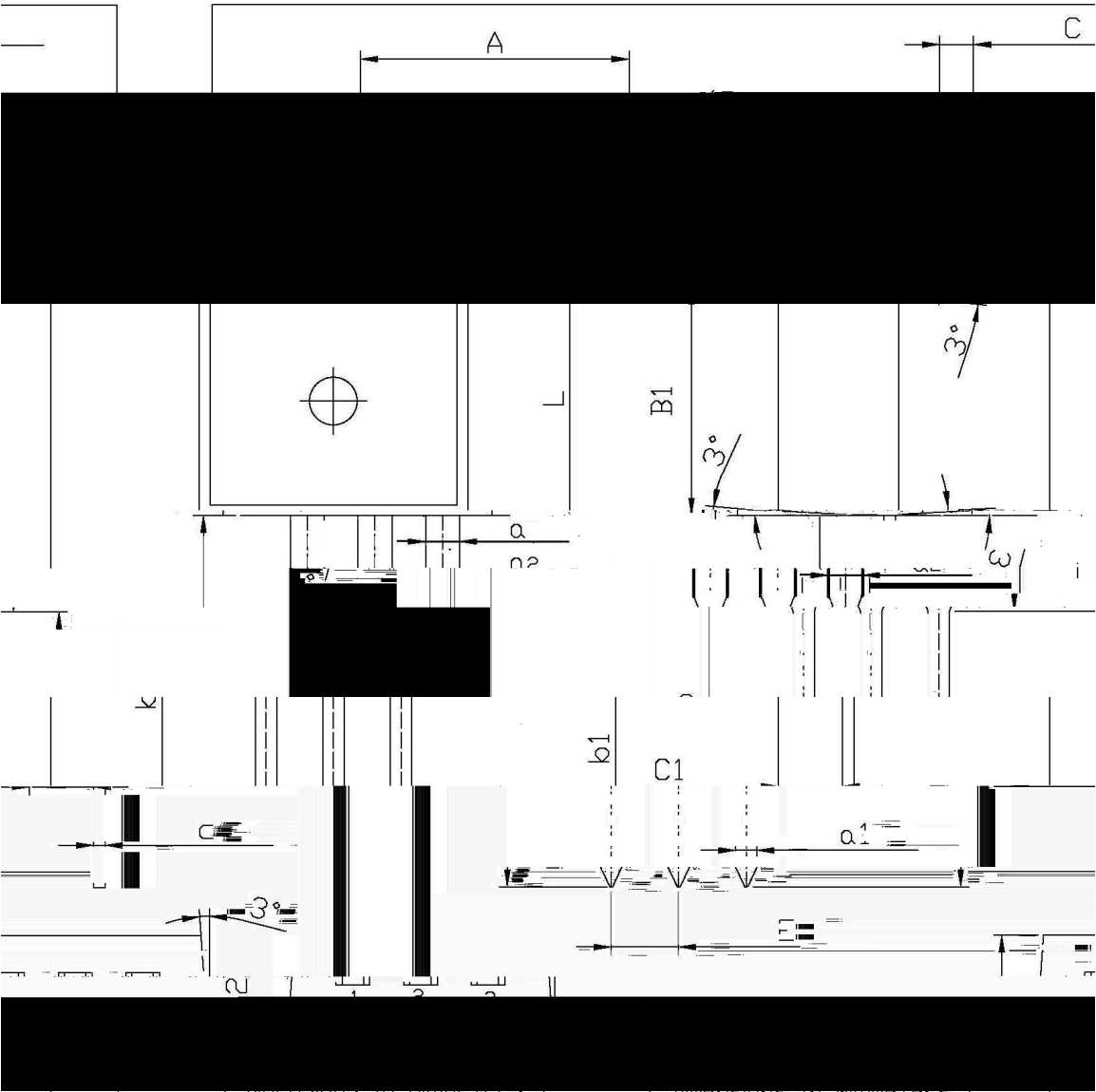


/ Package Dimensions

mm

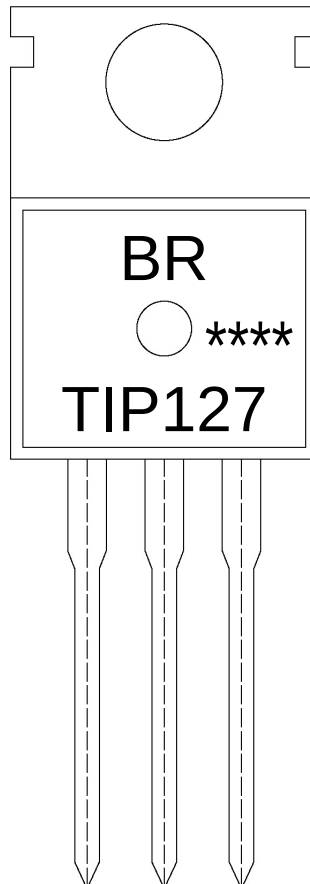
T0-220

单位: mm



Dimensions in Millimeters			Dimensions in Millimeters		
Symbol	Min	Max	Symbol	Min	Max
A	11.4	14.0	C	10.2	12.7
B1	9.8	12.7	B2	3.00	3.62
a	15.7	16.1	a1	9.0	9.4
b1	0.76	0.90	b2	0.60	0.76
C1	0.4	0.6	C2	1.22	1.32
	0.2	0.3		0.2	0.3
				1.25	1.45

/ Marking Instructions



BR

TIP127

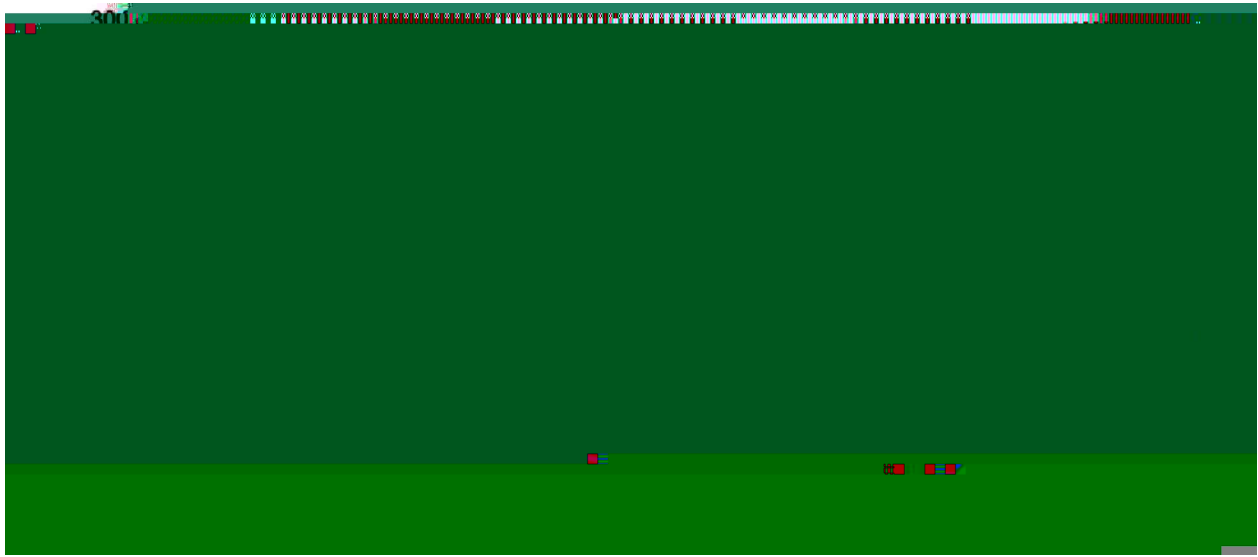
Note:

BR: Company Code

TIP127: Product Type.

****: Lot No. Code, code change with Lot No.

() / Temperature Profile for Dip Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-------|-----|-----------|---|--------------------------------------|
| 1 | 25 | 150 | 60 | 90sec; | 1.Preheating:25~150 , Time:60~90sec. |
| 2 | 255±5 | | 5±0.5sec; | 2.Peak Temp.:255±5 , Duration:5±0.5sec. | |
| 3 | | 2 | 10 | /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

270±5 10±1 sec. Temp.:270±5 Time:10±1 sec

/ Packaging SPEC.

/ BULK

Package Type	Units					Dimension (unit mm ³)		
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Bag	Inner Box	Outer Box
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Tube	Inner Box	Outer Box
TO-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

/ Notices