/ Absolute Maximum Ratings(Ta=25)

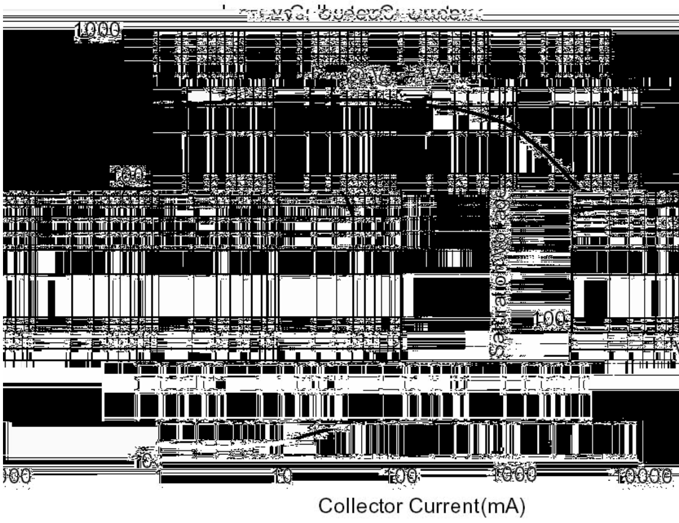
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-70	V
Collector to Emitter Voltage	V_{CEO}	-50	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current - Continuous	I_C	-4.0	A
Base Current - Continuous	I_{CP}	-8.0	A
Collector Power Dissipation	$P_C(T_C=25℃)$	40	W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55 150	℃

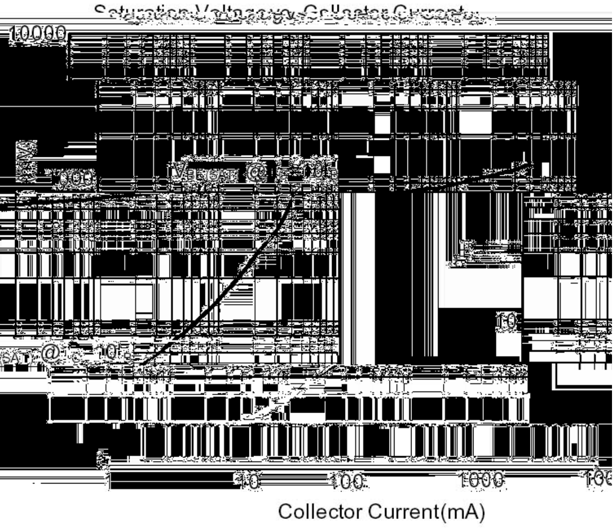
/ Electrical Characteristics(Ta=25)

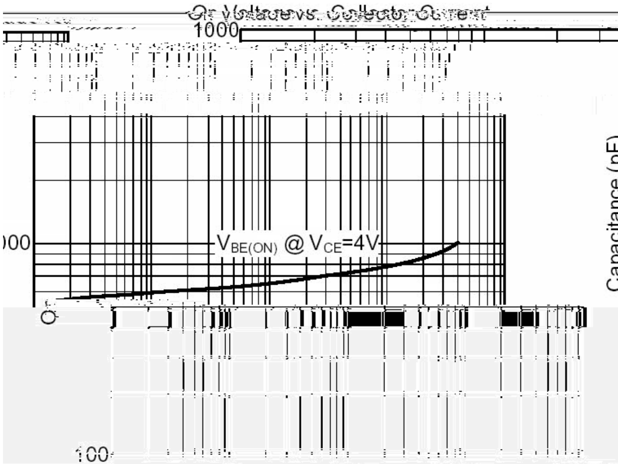
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	I_C=-10 A I_E=0	-70			V
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=-50mA I_B=0	-50			V
Emitter to Base Breakdown Voltage	V_{EBO}	I_E=-10 A I_C=0	-5.0			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=-50V I_E=0			-1.0	A
DC Current Gain	$h_{FE(1)*}$	V_{CE}=-4.0V I_C=-1.0A*	60		320	
	$h_{FE(2)*}$	V_{CE}=-4.0V I_C=-0.1A*	35			
Collector to Emitter Saturation Voltage*	$V_{CE(sat)*}$	I_C=-2.0A I_B=-0.2A*			-1.0	V
Base to Emitter Voltage*	V_{BE*}	V_{CE}=-4.0V I_C=-1.0A*			-1.0	V
Transition Frequency*	f_{T*}	V_{CE}=-4.0V I_C=-0.5A*		15		MHz

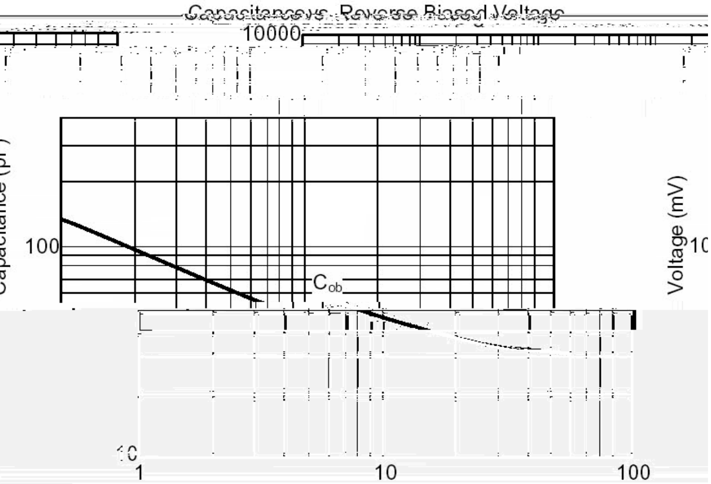
* /Pulse test.

/ Electrical Characteristic Curve



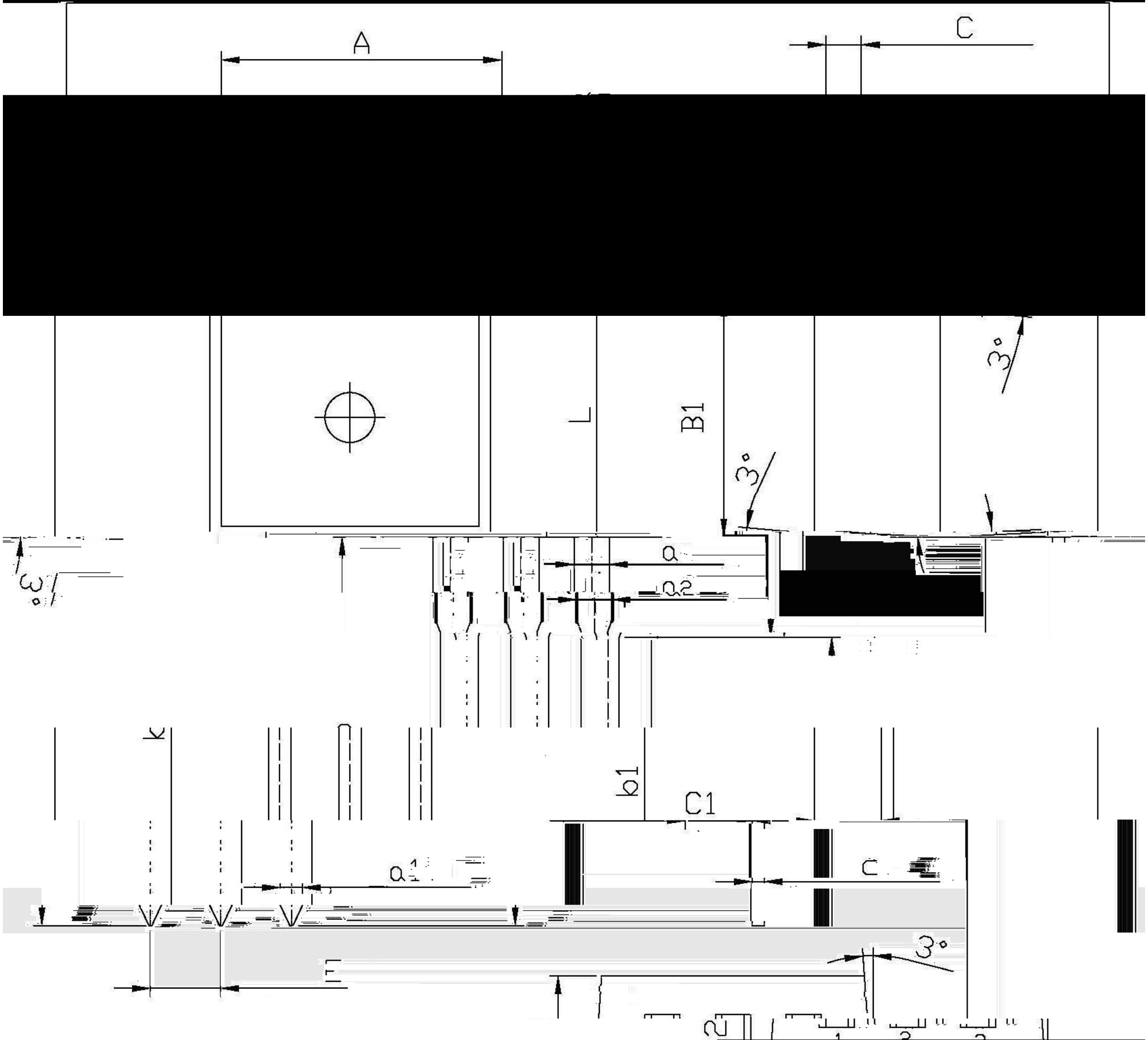






/ Package Dimensions

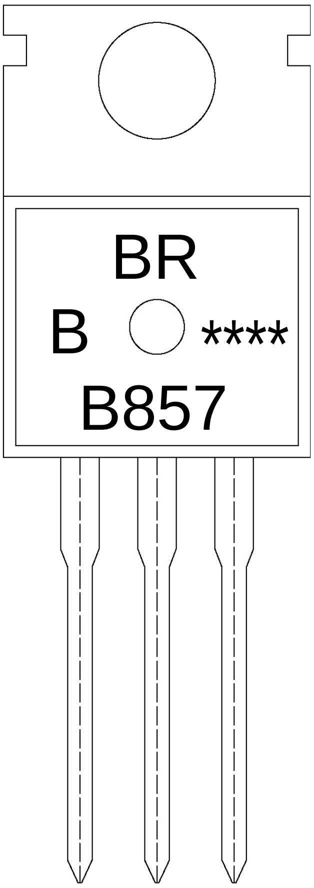
TO-220 单位：mm


[redacted]

[redacted]

Symbol	Dimensions In Millimeters Min	Max	Symbol	Dimensions In Millimeters Min	Max
A	9.8	10.2	C	1.2	1.4
R	3.56	3.64	B	6.3	6.7
[illegible]	15.7	16.1	B1	9.0	9.4
[illegible]	12.6	13.6	C1	2.2	2.6
b1	9.6	10.6	[illegible]	0.7	0.9
a	1.22	1.32	c	0.4	0.6
E	2.34	2.74	[illegible]	4.3	4.7
a2	1.25	1.45			

/ Marking Instructions



BR

B857

B: hFE

****

Note:

BR: Company Code

B857: Product Type.

B: h_{FE} Classifications Symbol

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

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

Note:

1 25 150 60 90sec;
2 255±5 5±0.5sec;
3 2 10 /sec.

1.Preheating:25~150 , Time:60~90sec.
2.Peak Temp.:255±5 , Duration:5±0.5sec.
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 封装形式	Units 包装数量				Dimension 包装尺寸 (unit: mm^3)
	Units/Bag 只/袋	Bags/Inner Box 袋/盒	Units/Inner Box 只/盒	In B	