

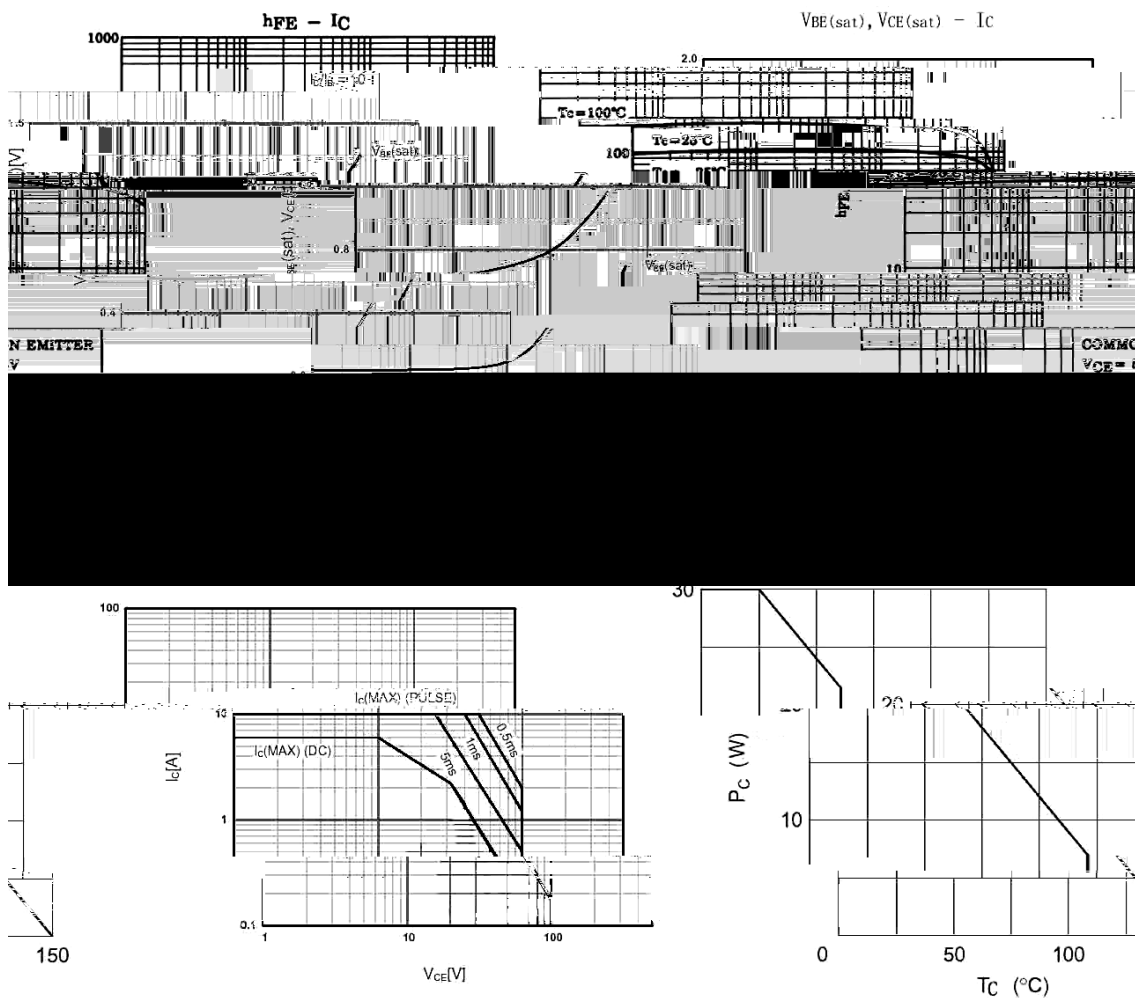
Rev.F Mar.-2016

TO-220F NPN Silicon NPN transistor in a TO-220F Plastic Package.

Low $V_{CE(sat)}$, , , 2SB1290

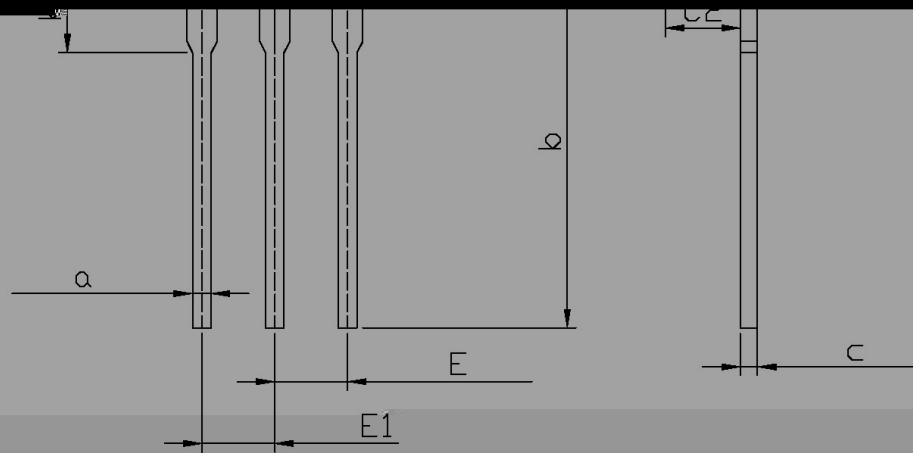
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	100	V
Collector to Emitter Voltage	V_{CEO}	80	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	7.0	A
Collector Current – Continuous(Pulse)	I_{CP}	10	A
Collector Power Dissipation	P_C	2.0	W
Collector Power Dissipation	$P_C(T_C=25^\circ\text{C})$	30	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 ~ 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=50\mu\text{A}$ $I_E=0$	100			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=1.0\text{mA}$ $I_B=0$	80			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=50\mu\text{A}$ $I_C=0$	5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=100\text{V}$ $I_E=0$			10	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=4.0\text{V}$ $I_C=0$			10	μA
DC Current Gain	h_{FE}	$V_{CE}=5.0\text{V}$ $I_C=1.0\text{A}$	60		320	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=4.0\text{A}$ $I_B=0.4\text{A}$			1.0	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=4.0\text{A}$ $I_B=0.4\text{A}$			1.5	V
Transition Frequency	f_T	$V_{CE}=5.0\text{V}$ $f=5.0\text{MHz}$ $I_C=0.5\text{A}$		5.0		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10\text{V}$ $I_E=0\text{A}$ $f=1.0\text{MHz}$		150		pF

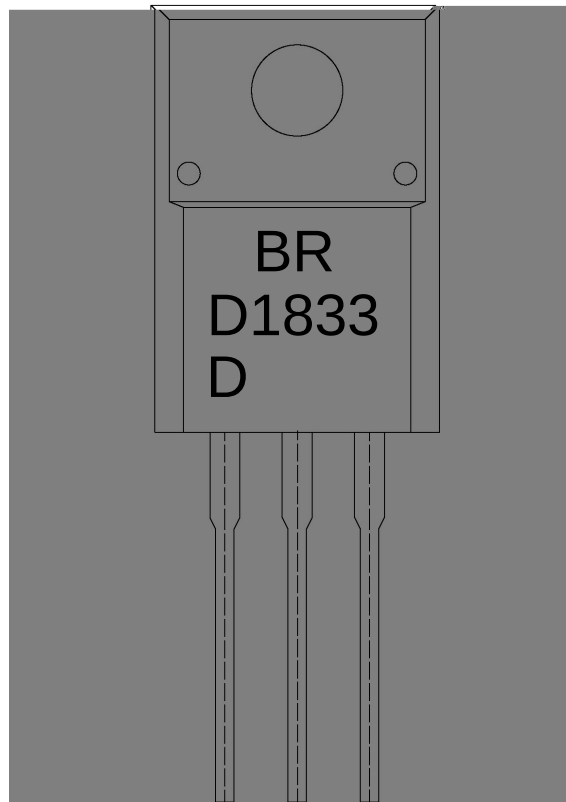


T0-220F

單位：



Dimensions In Millimeters			Dimensions In Millimeters		
Symbol	Min	Max	Symbol	Min	Max
C	4.3	4.7	b1	2.9	3.9
A	9.7	10.3	a	0.55	0.75
B	14.7	15.3	E	0.29	0.79



BR

D1833

D: h_{FE}

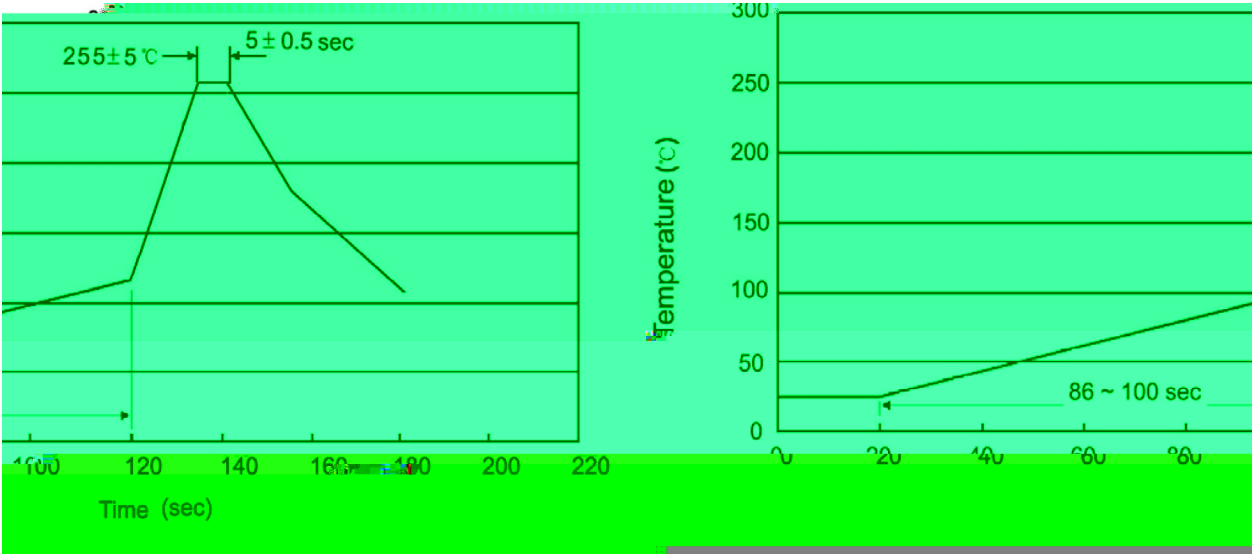
Note:

BR: Company Code.

D1833: Product Type.

D: h_{FE} Classifications Symbol

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



- 1

25 150

60 90sec;
- 2

255±5

5±0.5sec;
- 3

2 10

/sec.

Note:

1.Preheating:25~150

, Time:60~90sec.

2.Peak Temp.:255±5

, Duration:5±0.5sec.

3. Cooling Speed: 2~10

/sec.

270±5

10±1 sec.

Temp.:270±5

Time:10±1 sec

/ BULK

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	只袋	袋盒	只盒	盒箱	只箱	袋	盒	箱

/ TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	只套管	套管盒	只盒	盒箱	只箱	套管	盒	箱