

Rev. H Oct.-2018

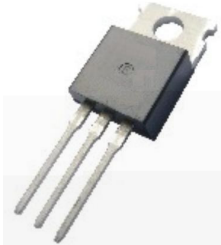
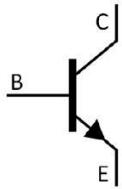
TO-220

NPN

Silicon NPN transistor in a TO-220 Plastic Package.

Low collector-emitter saturation voltage, fast switching speed.

General purpose switching, general purpose amplifier.



PIN1 Base

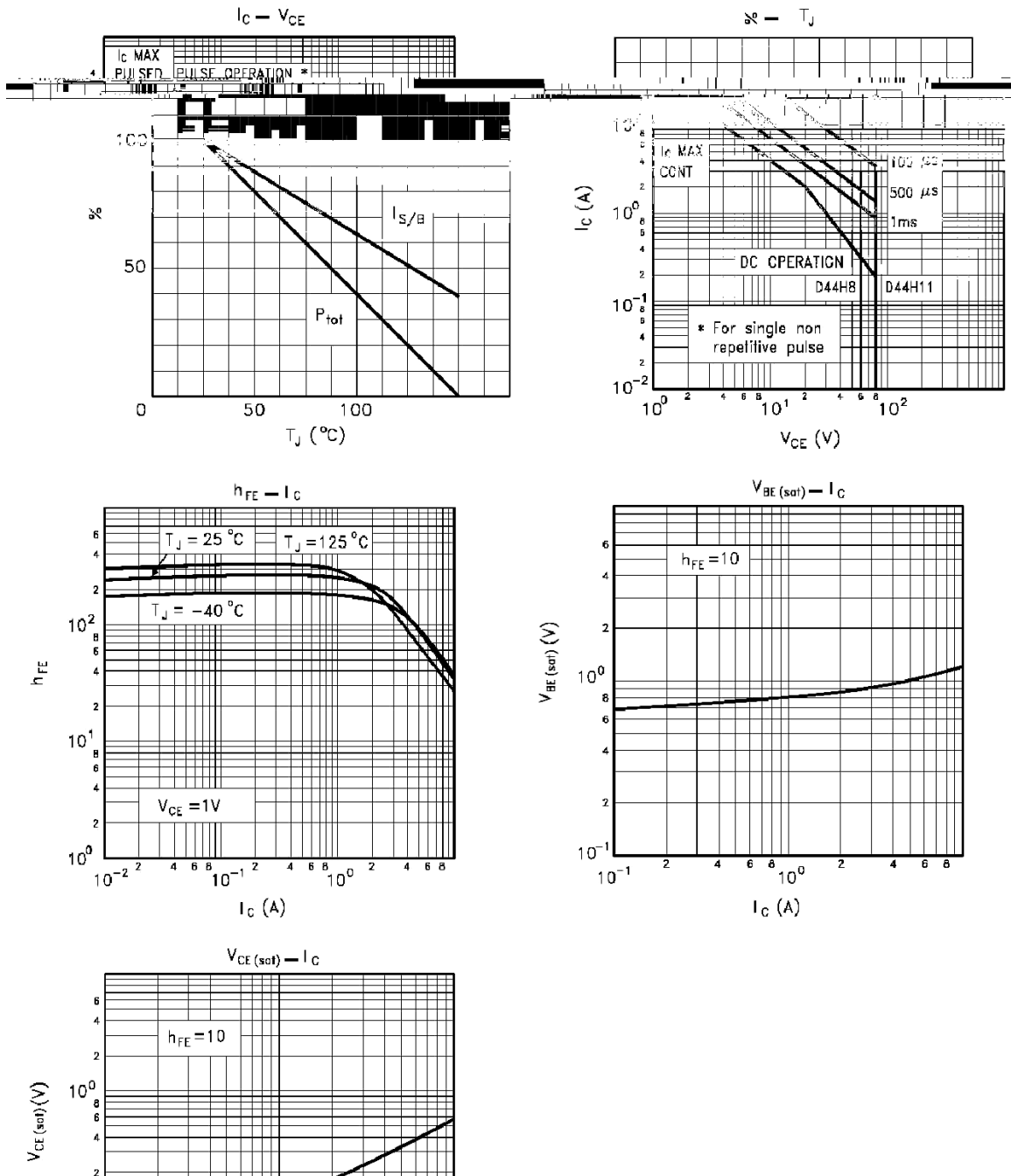
PIN 2 Collector

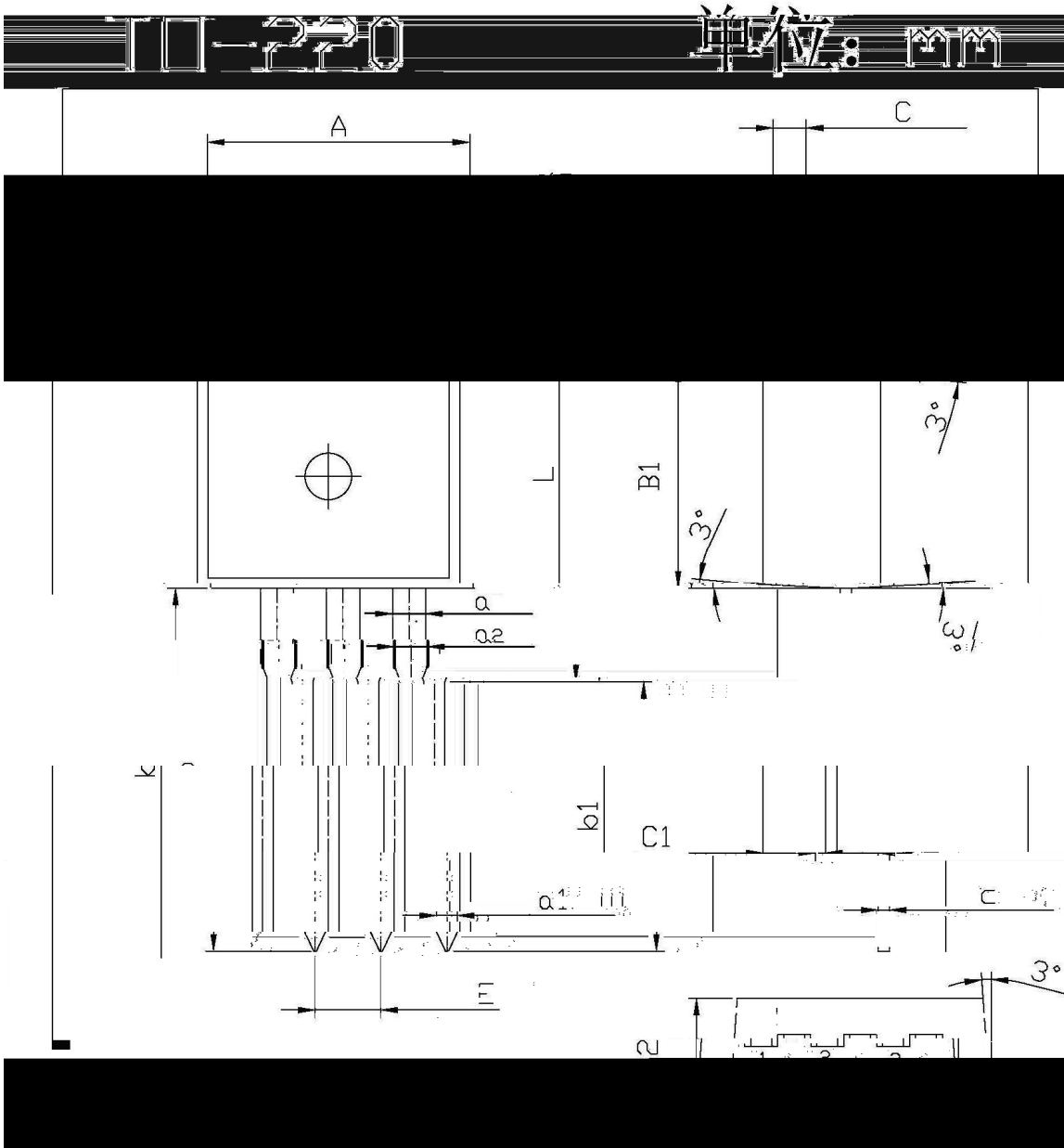
PIN 3 Emitter

See Marking Instructions.

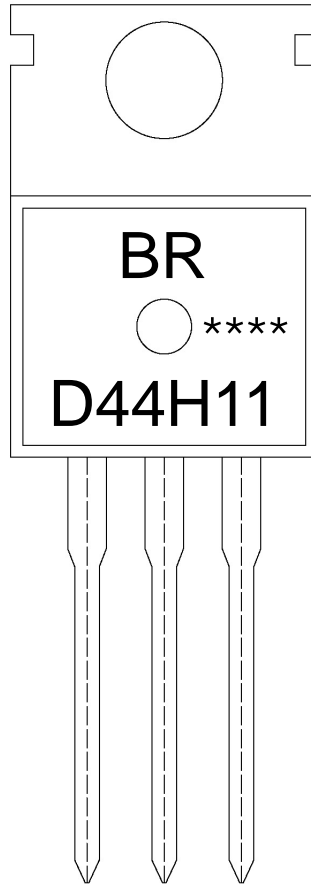
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	80	V
Collector to Emitter Voltage	V_{CEO}	80	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	10	A
Peak Collector - Continuous	I_{CM}	20	A
Collector Power Dissipation	$P_C(T_c=25^\circ\text{C})$	50	W
Thermal Resistance Junction-case	R_{JC}	2.5	/W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=100\text{mA}$ $I_B=0$	80			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=80\text{V}$ $I_E=0$			10	A
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0\text{V}$ $I_C=0$			100	A
DC Current Gain	$h_{FE(1)}$	$V_{CE}=1.0\text{V}$ $I_C=2.0\text{A}$	60		200	
	$h_{FE(2)}$	$V_{CE}=1.0\text{V}$ $I_C=4.0\text{A}$	40			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=8.0\text{A}$ $I_B=0.4\text{A}$			1.0	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=8.0\text{A}$ $I_B=0.8\text{A}$			1.5	V





Symbol	Dimensions in Millimeters		Symbol	Dimensions in Millimeters	
	Min	Max		Min	Max
A	9.8	10.2	C	1.2	1.4
R	3.56	3.64	B	6.3	6.7
B1	16.1	9.0	C1	9.4	2.6
a	1.22	1.32	C2	4.3	4.7
E	2.34	2.74			
a2	1.25	1.45			



BR

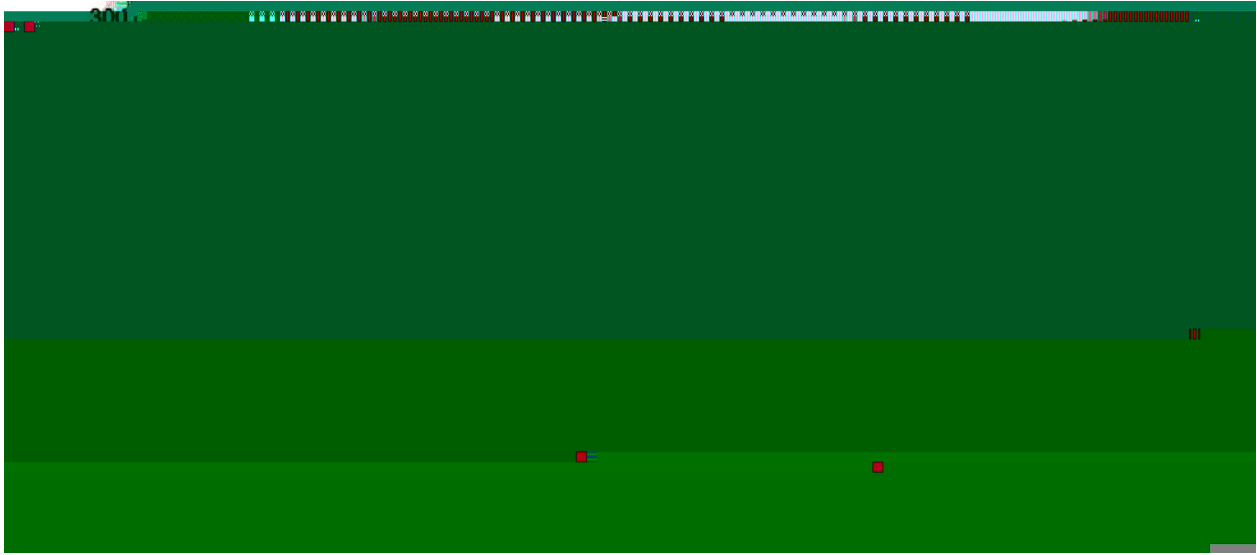
D44H11

Note:

BR: Company Code

D44H11: Product Type.

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


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. |

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)		
	Units/Bag 只/袋	Bags/Inner Box 袋/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Bag 袋	Inner Box 盒	Outer Box 箱
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Tube 套管	Inner Box 盒	Outer Box 箱
TO-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180