

/ Descriptions

TO-126F NPN Silicon NPN transistor in a TO-126F Plastic Package.

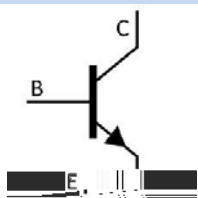
/ Features

V_{CEO} , 2SB631K
High V_{CEO} ,high current, low $V_{CE(sat)}$ and good linearity of h_{FE} ; complementary pair with 2SB631K.

/ Applications

Low frequency power amplifier, medium speed switching applications.

/ Equivalent Circuit



/ Pinning



PIN1 Emitter PIN 2 Collector PIN 3 Base

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	D	E	F
h_{FE} Range	60~120	100~200	160~320

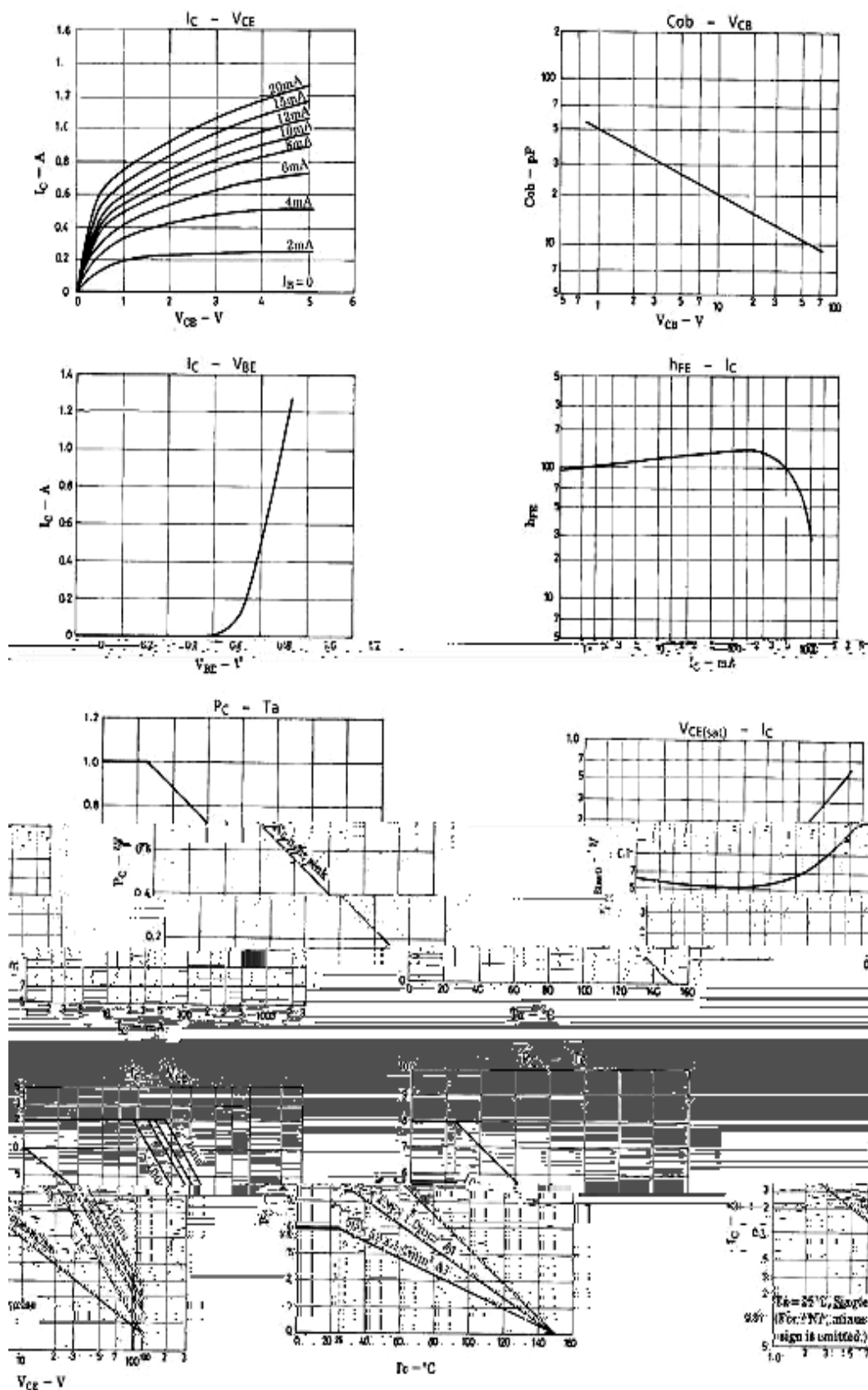
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	120	V
Collector to Emitter Voltage	V_{CEO}	120	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	1.0	A
Peak Collector Current	I_{CP}	2.0	A
Collector Power Dissipation	P_C	1.0	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}	$I_C=10\mu A$ $I_E=0$	120			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=1.0mA$ $R_{BE}=\infty$	120			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=10\mu A$ $I_C=0$	5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=50V$ $I_E=0$			1.0	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=4.0V$ $I_C=0$			1.0	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=5.0V$ $I_C=50mA$	60		320	
	$h_{FE(2)}$	$V_{CE}=5.0V$ $I_C=500mA$	20			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500mA$ $I_B=50mA$		0.15	0.4	V
Base to Emitter Voltage	$V_{BE(sat)}$	$I_C=500mA$ $I_B=50mA$		0.85	1.2	V
Transition Frequency	f_T	$V_{CE}=10V$ $I_C=50mA$		130		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V$ $f=1.0MHz$		20		pF

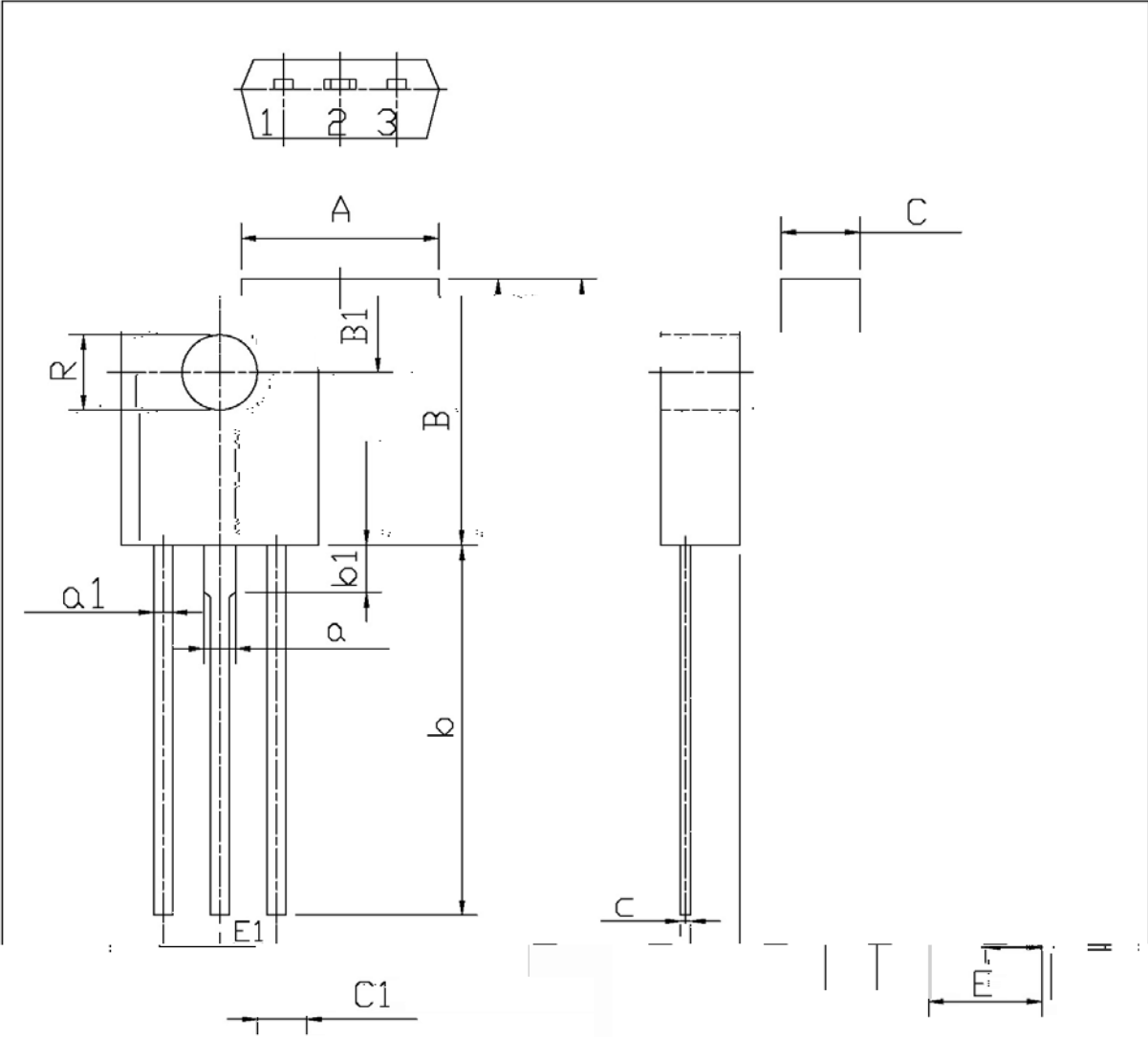
/ Electrical Characteristic Curve



/ Package Dimensions

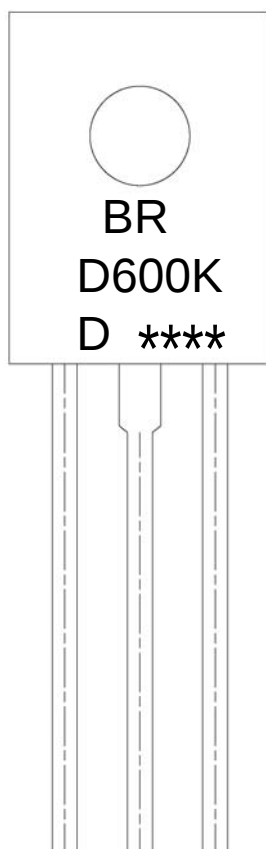
T□-126F

单位: mm



Dimensions		Symbol	Dimensions		Symbol
Min	Max		Min	Max	
7.8	8.2	α_1	0.66	0.86	A
10.8	11.2	E	4.4	4.8	B
3.8	4.2	C	3.1	3.3	B1
2.95	3.15	C1	1.9	2.1	E
1.2	1.3	a	1.27	1.37	E1
b1	1.9	a	1.27		
E1	2.1	2.5			

/ Marking Instructions



BR

D600K

D: h_{FE}

Note:

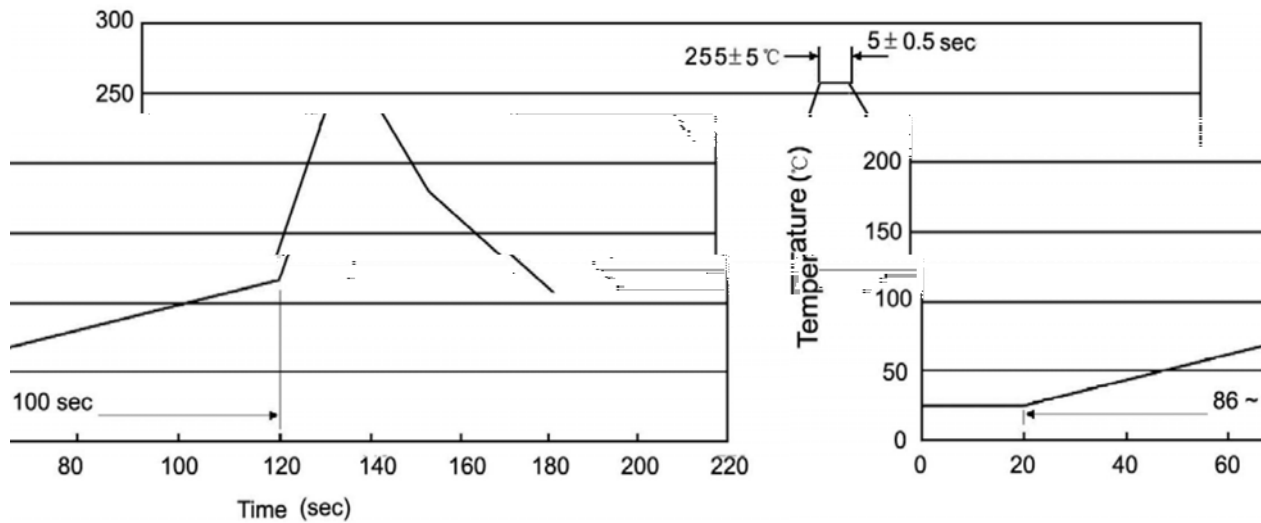
BR: Company Code

D600K: Product Type.

D: 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; | 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 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-126/F	500	6	3,000	5	15,000	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)
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