

2SC5171S

Rev.F Mar.-2016

TO-126

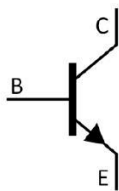
NPN

Silicon NPN transistor in a TO-126 Plastic Package.

2SA1930S

High f_T , complementary pair with 2SA1930S.

General power and driver stage amplifier applications.



PIN1 Emitter

PIN 2 Collector

PIN 3 Base

/ h_{FE} Classifications & Marking

See Marking Instructions.

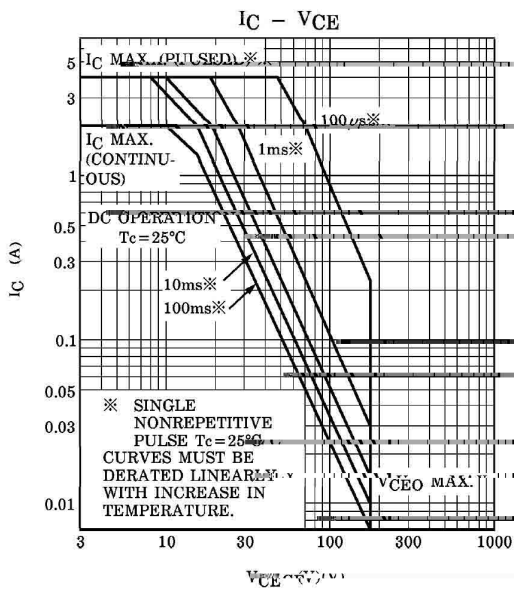
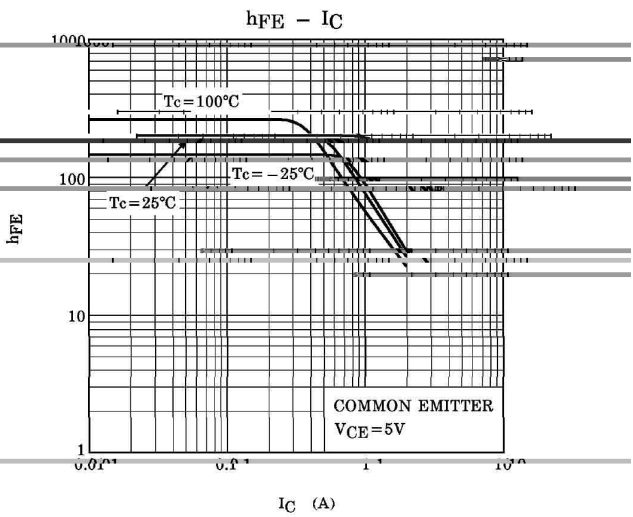
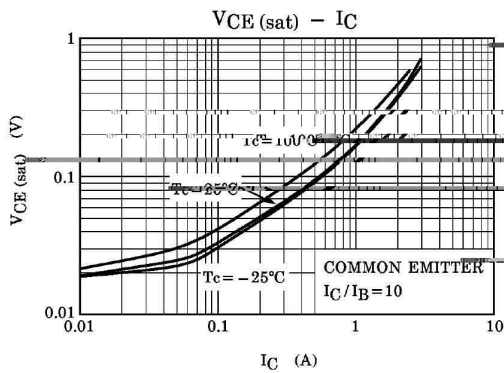
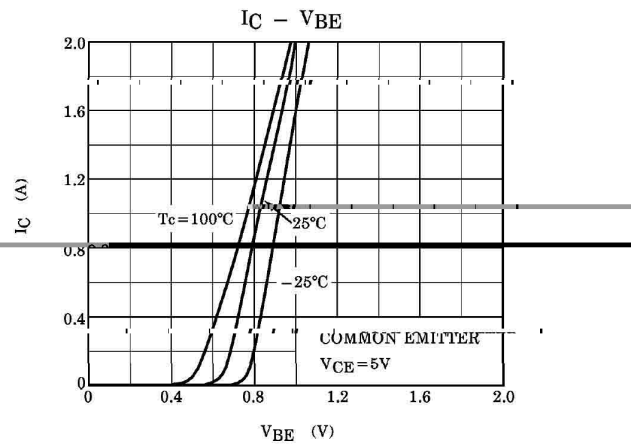
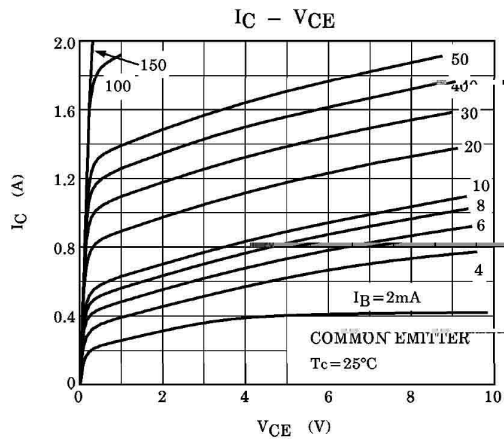
/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	180	V
Collector to Emitter Voltage	V_{CEO}	180	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	2.0	A
Base Current	I_B	1.0	A
Collector Power Dissipation	P_C	1.5	W
Collector Power Dissipation	$P_C(T_c=25^\circ\text{C})$	20	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 150	$^\circ\text{C}$

/ Electrical Characteristics($T_a=25^\circ\text{C}$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=10\text{mA}$ $I_B=0$	180			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=180\text{V}$ $I_E=0$			5.0	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0\text{V}$ $I_C=0$			5.0	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=5.0\text{V}$ $I_C=100\text{mA}$	100		320	
	$h_{FE(2)}$	$V_{CE}=5.0\text{V}$ $I_C=1.0\text{A}$	50			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=1.0\text{A}$ $I_B=100\text{mA}$		0.16	1.0	V
Base to Emitter Saturation Voltage	V_{BE}	$V_{CE}=5.0\text{V}$ $I_C=1.0\text{A}$		0.68	1.5	V
Transition Frequency	f_T	$V_{CE}=5.0\text{V}$ $I_C=300\text{mA}$		200		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10\text{V}$ $f=1.0\text{MHz}$ $I_E=0$		16		pF

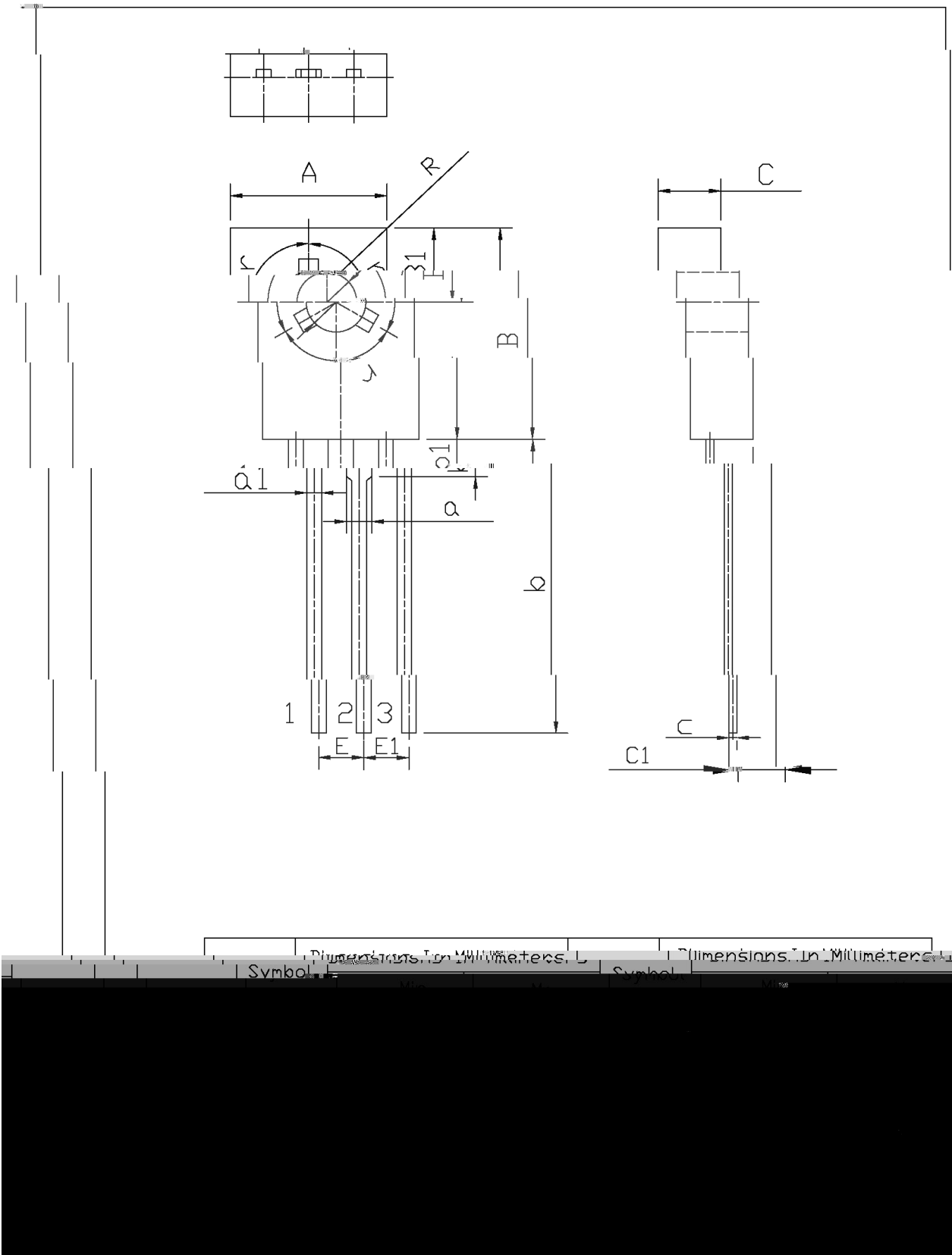
/ **Electrical Characteristic Curve**



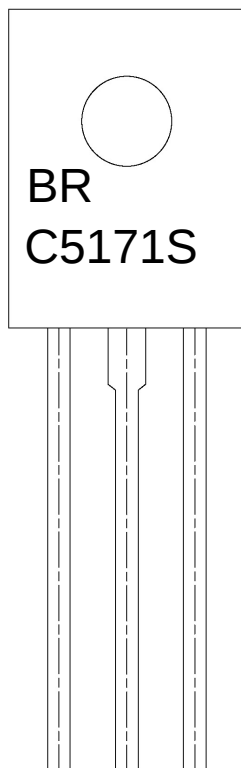
/ Package Dimensions

T□-126

单位: mm



/ **Marking Instructions**



BR

C5171S

Note:

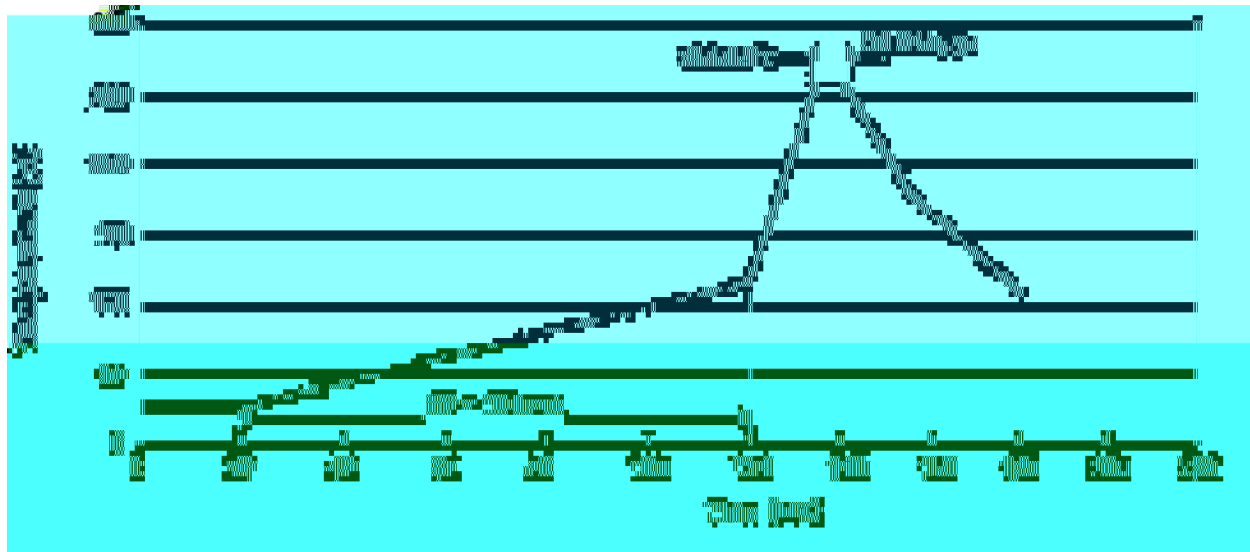
BR: Company Code

C5171S: 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
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/ Packaging SPEC.

/ BULK

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

/ 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

/ Notices