

2SC5171S

Rev.F Mar.-2016

WR0459

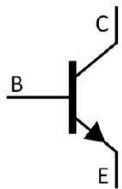
QSQ

Silicon NPN transistor in a TO-18 Plastic Package.

$5V_{D4} < 63V$

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	
Storage Temperature Range	T_{stg}	-55 ~ 150	

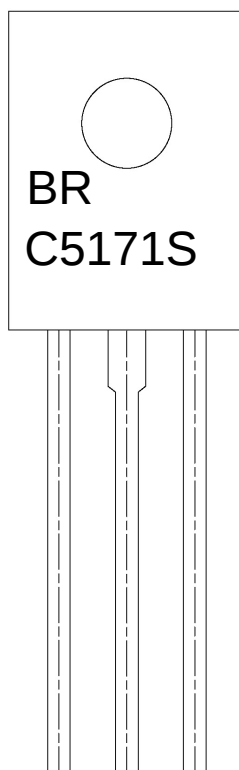
/ Electrical Characteristics($T_a=25^\circ\text{C}$)

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	A
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0\text{V}$ $I_C=0$			5.0	A
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

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/ Marking Instructions



BR

F84 : 4V

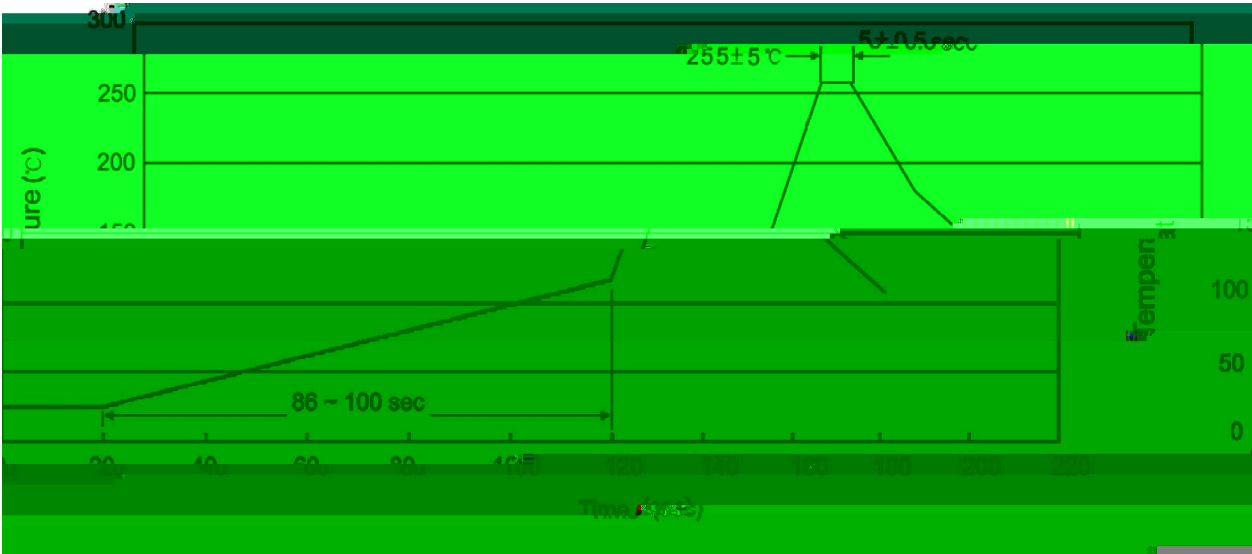
Note:

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 $\frac{3}{8}$

60 90sec;
- 2

255 $\pm 5\frac{3}{8}$

5 ± 0.5 sec;
- 3

2 10 $\frac{3}{8}$ /sec.
- 1.Preheating:25~150 $\frac{3}{8}$, Time:60~90sec.

2.Peak Temp.:255 $\pm 5\frac{3}{8}$, Duration:5 ± 0.5 sec.

3. Cooling Speed: 2~10 $\frac{3}{8}$ /sec.

/ Resistance to Soldering Heat Test Conditions

270 $\pm 5\frac{3}{8}$

10 ± 1 sec.

Temp.:270 ± 5

Time:10 ± 1 sec

/ Packaging SPEC.

/ BULK

Package Type	Units	Dimension	(unit mm ³)
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