

/ Descriptions

Silicon NPN transistor in a TO-220 Plastic Package.

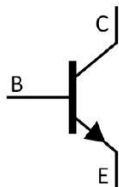
/ Features

High collector-Emitter voltage, current-Gain-Bandwidth product.

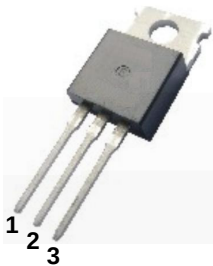
/ Applications

Color TV chroma output.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	R	O	Y
h_{FE} Range	40 80	70 140	120 240

/ Absolute Maximum Ratings(Ta=25)

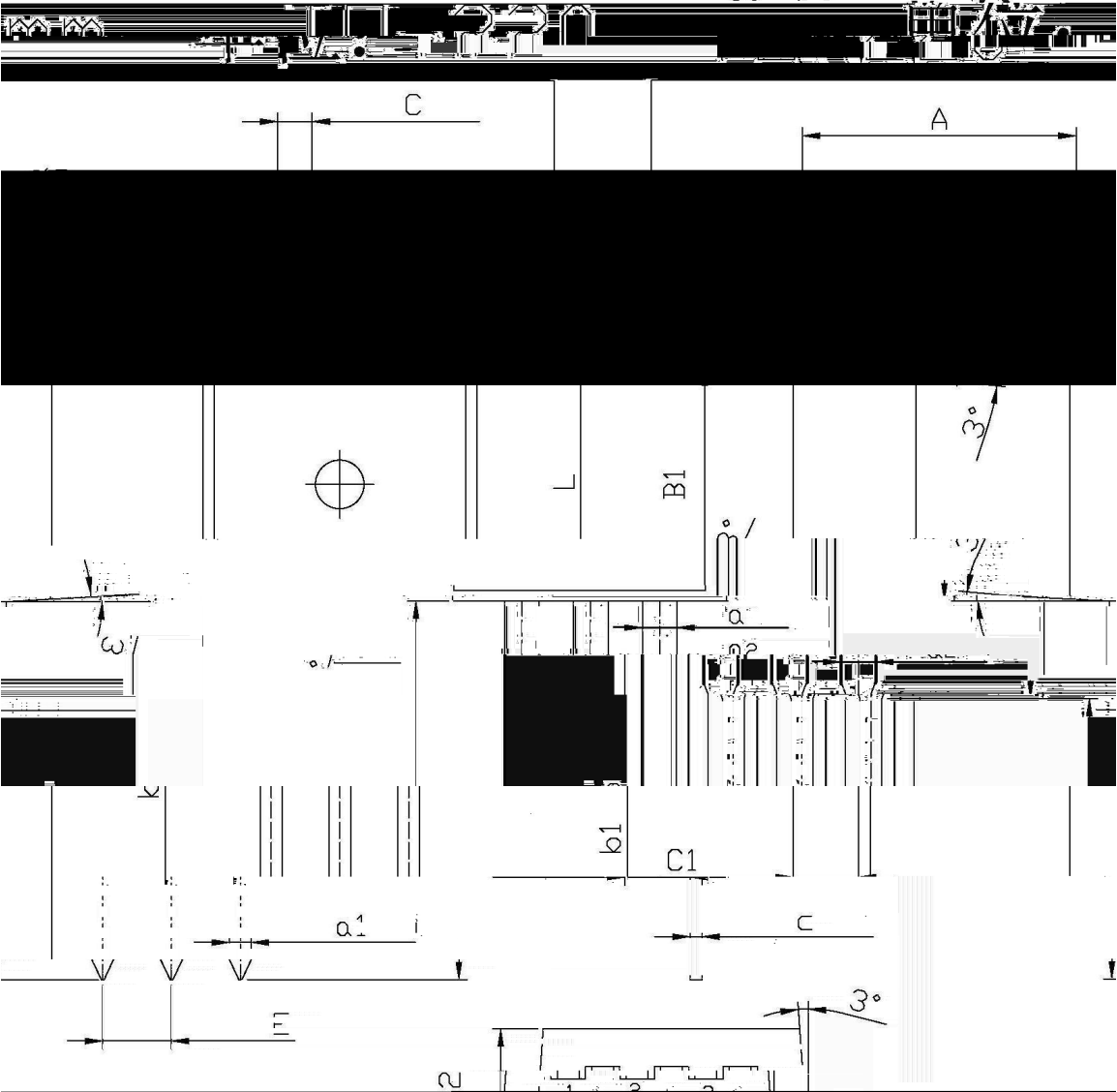
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	300	V
Collector to Emitter Voltage	V_{CEO}	300	V
Emitter to Base Voltage	V_{EBO}	7.0	V
Collector Current - Continuous	I_C	200	mA
Collector Power Dissipation	P_C	15	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=10\text{ A}$ $I_E=0$	300			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=10\text{mA}$ $I_B=0$	300			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=-10\text{ A}$ $I_C=0$	7.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=200\text{V}$ $I_E=0$			100	A
DC Current Gain	h_{FE}	$V_{CE}=10\text{V}$ $I_C=10\text{mA}$	40		240	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=50\text{mA}$ $I_B=5.0\text{mA}$			2.0	V
Transition Frequency	f_T	$V_{CE}=30\text{V}$ $I_C=10\text{mA}$	40	80		MHz
Collector output capacitance	C_{ob}	$V_{CB}=50\text{V}$ $I_E=0$ $f=1.0\text{MHz}$		4.0		pF

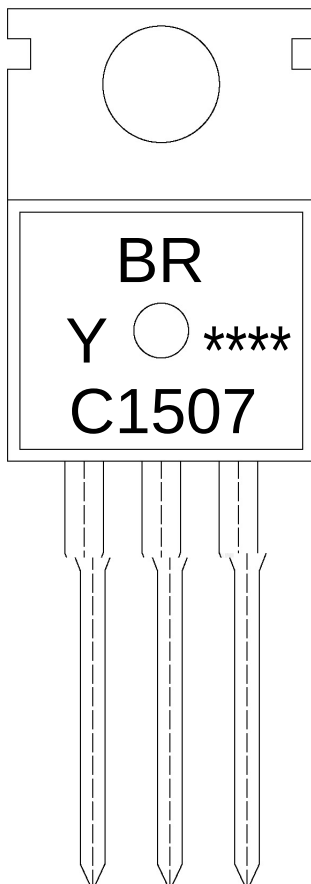
/ Electrical Characteristic Curve

/ Package Dimensions



Dimensions in Millimeters			Dimensions in Millimeters		
Symbol	Min	Max	Symbol	Min	Max
	9.4	10.2		1.2	1.4
	15.7	16.1		0.3	0.5
	1.2	1.4		0.3	0.5
	0.3	0.5		0.3	0.5

/ Marking Instructions



Note:

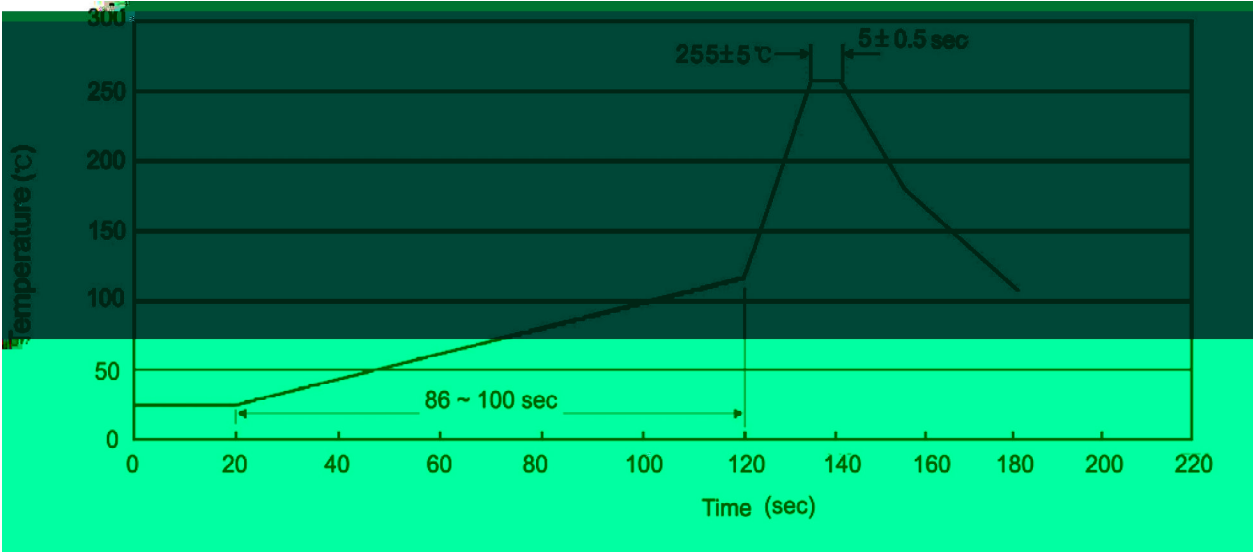
BR: Company Code

C1507: Product Type.

Y: 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;
- 2

255 5

5 0.5sec;
- 3

2 10

/sec.
- 1.Preheating:25~150

, Time:60~90sec.
- 2.Peak Temp.:255 5

, Duration:5 0.5sec.
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/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
10K (10000)	10000	1	10000	1	10000	10000	1	1
25K (25000)	25000	1	25000	1	25000	25000	1	1
50K (50000)	50000	1	50000	1	50000	50000	1	1
100K (100000)	100000	1	100000	1	100000	100000	1	1
250K (250000)	250000	1	250000	1	250000	250000	1	1
500K (500000)	500000	1	500000	1	500000	500000	1	1
1M (1000000)	1000000	1	1000000	1	1000000	1000000	1	1
2.5M (2500000)	2500000	1	2500000	1	2500000	2500000	1	1
5M (5000000)	5000000	1	5000000	1	5000000	5000000	1	1
10M (10000000)	10000000	1	10000000	1	10000000	10000000	1	1
25M (25000000)	25000000	1	25000000	1	25000000	25000000	1	1
50M (50000000)	50000000	1	50000000	1	50000000	50000000	1	1
100M (100000000)	100000000	1	100000000	1	100000000	100000000	1	1
250M (250000000)	250000000	1	250000000	1	250000000	250000000	1	1
500M (500000000)	500000000	1	500000000	1	500000000	500000000	1	1
1T (1000000000)	1000000000	1	1000000000	1	1000000000	1000000000	1	1
2.5T (2500000000)	2500000000	1	2500000000	1	2500000000	2500000000	1	1
5T (5000000000)	5000000000	1	5000000000	1	5000000000	5000000000	1	1
10T (10000000000)	10000000000	1	10000000000	1	10000000000	10000000000	1	1
25T (25000000000)	25000000000	1	25000000000	1	25000000000	25000000000	1	1
50T (50000000000)	50000000000	1	50000000000	1	50000000000	50000000000	1	1
100T (100000000000)	100000000000	1	100000000000	1	100000000000	100000000000	1	1
250T (250000000000)	250000000000	1	250000000000	1	250000000000	250000000000	1	1
500T (500000000000)	500000000000	1	500000000000	1	500000000000	500000000000	1	1
1B (1000000000000)	1000000000000	1	1000000000000	1	1000000000000	1000000000000	1	1
2.5B (2500000000000)	2500000000000	1	2500000000000	1	2500000000000	2500000000000	1	1
5B (5000000000000)	5000000000000	1	5000000000000	1	5000000000000	5000000000000	1	1
10B (10000000000000)	10000000000000	1	10000000000000	1	10000000000000	10000000000000	1	1
25B (25000000000000)	25000000000000	1	25000000000000	1	25000000000000	25000000000000	1	1
50B (50000000000000)	50000000000000	1	50000000000000	1	50000000000000	50000000000000	1	1
100B (100000000000000)	100000000000000	1	100000000000000	1	100000000000000	100000000000000	1	1
250B (250000000000000)	250000000000000	1	250000000000000	1	250000000000000	250000000000000	1	1
500B (500000000000000)	500000000000000	1	500000000000000	1	500000000000000	500000000000000	1	1
1K (1000000000000000)	1000000000000000	1	1000000000000000	1	1000000000000000	1000000000000000	1	1
2.5K (2500000000000000)	2500000000000000	1	2500000000000000	1	2500000000000000	2500000000000000	1	1
5K (5000000000000000)	5000000000000000	1	5000000000000000	1	5000000000000000	5000000000000000	1	1
10K (10000000000000000)	10000000000000000	1	10000000000000000	1	10000000000000000	10000000000000000	1	1
25K (25000000000000000)	25000000000000000	1	25000000000000000	1	25000000000000000	25000000000000000	1	1
50K (50000000000000000)	50000000000000000	1	50000000000000000	1	50000000000000000	50000000000000000	1	1
100K (100000000000000000)	100000000000000000	1	100000000000000000	1	100000000000000000	100000000000000000	1	1
250K (250000000000000000)	250000000000000000	1	250000000000000000	1	250000000000000000	250000000000000000	1	1
500K (500000000000000000)	500000000000000000	1	500000000000000000	1	500000000000000000	500000000000000000	1	1
1M (1000000000000000000)	1000000000000000000	1	1000000000000000000	1	1000000000000000000	1000000000000000000	1	1
2.5M (2500000000000000000)	2500000000000000000	1	2500000000000000000	1	2500000000000000000	2500000000000000000	1	1
5M (5000000000000000000)	5000000000000000000	1	5000000000000000000	1	5000000000000000000	5000000000000000000	1	1
10M (10000000000000000000)	10000000000000000000	1	10000000000000000000	1	10000000000000000000	10000000000000000000	1	1
25M (25000000000000000000)	25000000000000000000	1	25000000000000000000	1	25000000000000000000	25000000000000000000	1	1
50M (50000000000000000000)	50000000000000000000	1	50000000000000000000	1	50000000000000000000	50000000000000000000	1	1
100M (100000000000000000000)	100000000000000000000	1	100000000000000000000	1	100000000000000000000	100000000000000000000	1	1
250M (250000000000000000000)	250000000000000000000	1	250000000000000000000	1	250000000000000000000	250000000000000000000	1	1
500M (500000000000000000000)	500000000000000000000	1	500000000000000000000	1	500000000000000000000	500000000000000000000	1	1
1B (1000000000000000000000)	1000000000000							