

/ Descriptions

Silicon NPN transistor in a TO-92 Plastic Package.

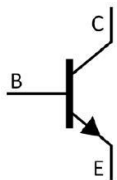
/ Features

Low $V_{CE(sat)}$, excellent current gain characteristics complementary pair with 2SA1585.

/ Applications

Low frequency amplifier.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ hFE Classifications & Marking

h_{FE} Classifications Symbol	Q	R	S
h_{FE} Range	120~270	180~390	270~560

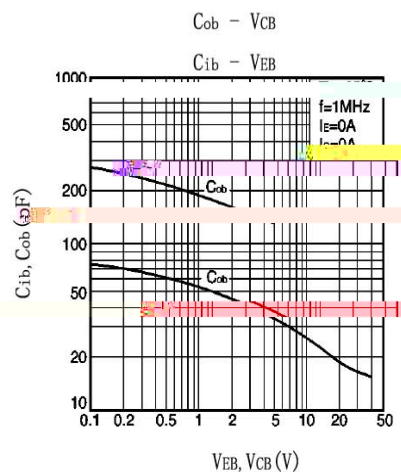
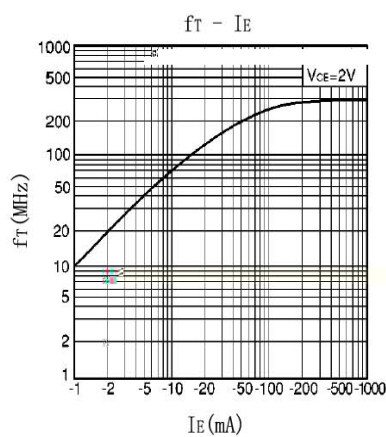
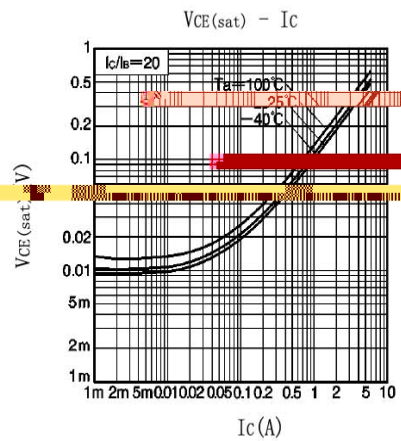
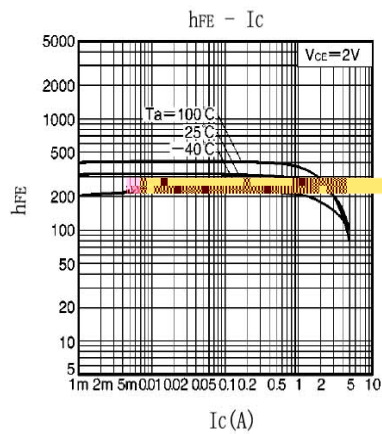
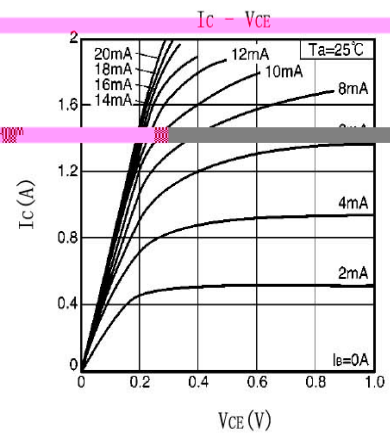
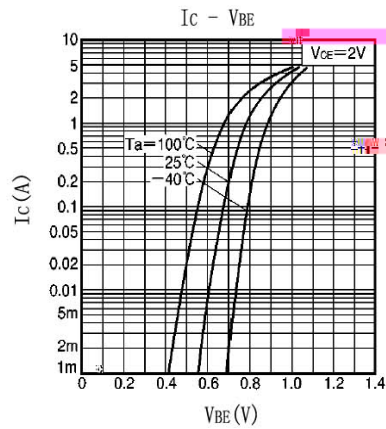
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	20	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	3.0	A
Peak Collector Current - Continuous	I_{CM}	5.0	A
Collector Power Dissipation	P_C	0.4	W
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{stg}	-55 150	°C

/ Electrical Characteristics(Ta=25)

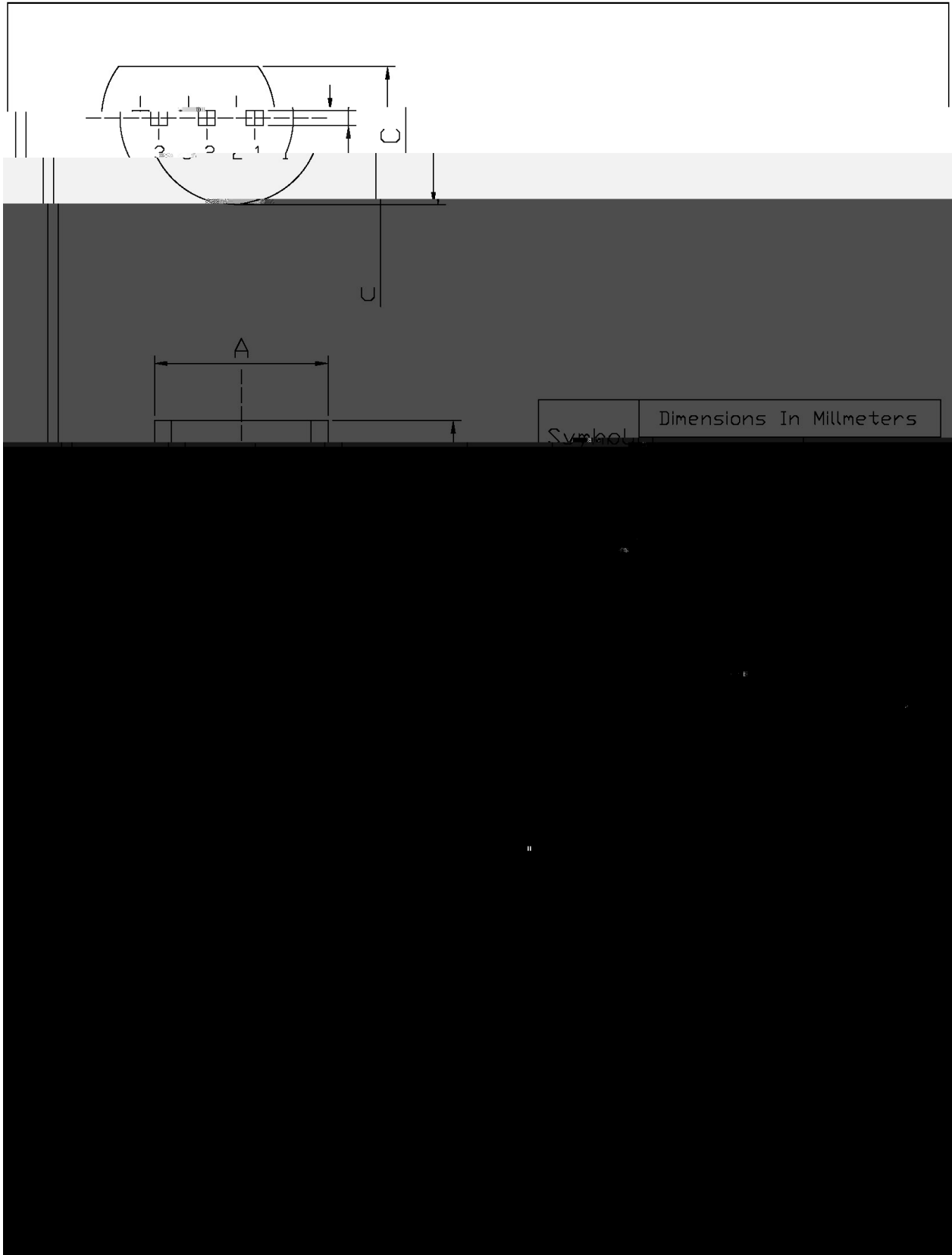
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=50\text{ A}$ $I_E=0$	40			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=1.0\text{mA}$ $I_B=0$	20			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=50\text{ A}$ $I_C=0$	6.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=30\text{V}$ $I_E=0$			0.1	A
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0\text{V}$ $I_C=0$			0.1	A
DC Current Gain	h_{FE}	$V_{CE}=2.0\text{V}$ $I_C=0.1\text{A}$	120		560	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2.0\text{A}$ $I_B=0.1\text{A}$		0.2	0.5	V
Transition Frequency	f_T	$V_{CE}=2.0\text{V}$ $I_C=0.5\text{A}$ $f=100\text{MHz}$		290		MHz
Output Capacitance	C_{ob}	$V_{CB}=10\text{V}$ $I_E=0$ $f=1.0\text{MHz}$		25		pF

/ Electrical Characteristic Curve

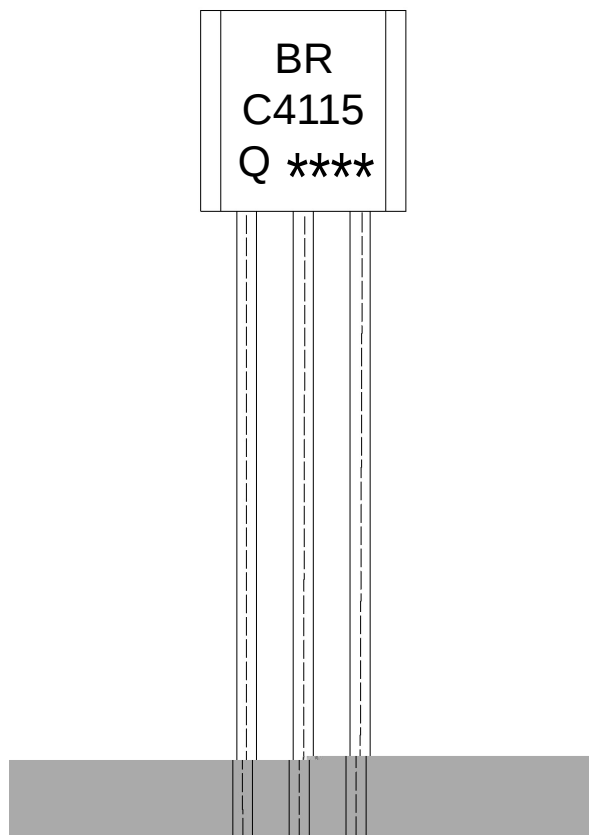


T0-92

Unit: mm



/ Marking Instructions



Note:

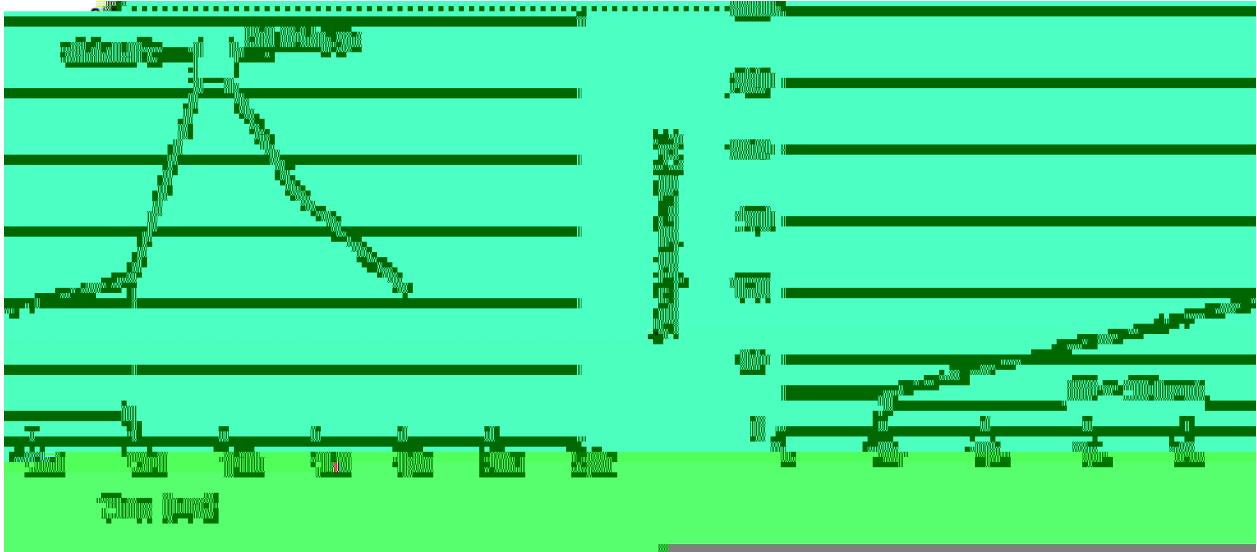
BR: Company Code.

C4115: Product Type.

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	Units					Dimension (unit mm3)		
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Bag	Inner Box	Outer Box
TO-92	1,000	10	10,000	5	50,000	135×190	237×172×102	560×245×195
	1,000	10	10,000	10	100,000	135×190	237×172×102	560×245×375

/ AMMO

Package Type	Units					Dimension (unit mm3)	
	Units/tape /	Tape/Inner Box /	Rows/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Inner Box	Outer Box
TO-92	3,000	1	120	10	30,000	328×230×42	480×346×235 547×407×268

/ Notices