

BC548

Rev.E Mar.-2016

/ Descriptions

TO-92(R) NPN Silicon NPN transistor in a TO-92(R) Plastic Package.

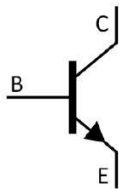
/ Features

High Voltage, Low Noise.

/ Applications

General purpose and switching application.

/ Equivalent Circuit



/ Pinning



PIN1 Emitter PIN 2 Base PIN 3 Collector

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	A	B	C
h_{FE} Range	110 220	200 450	420 800

/ Absolute Maximum Ratings(Ta=25)

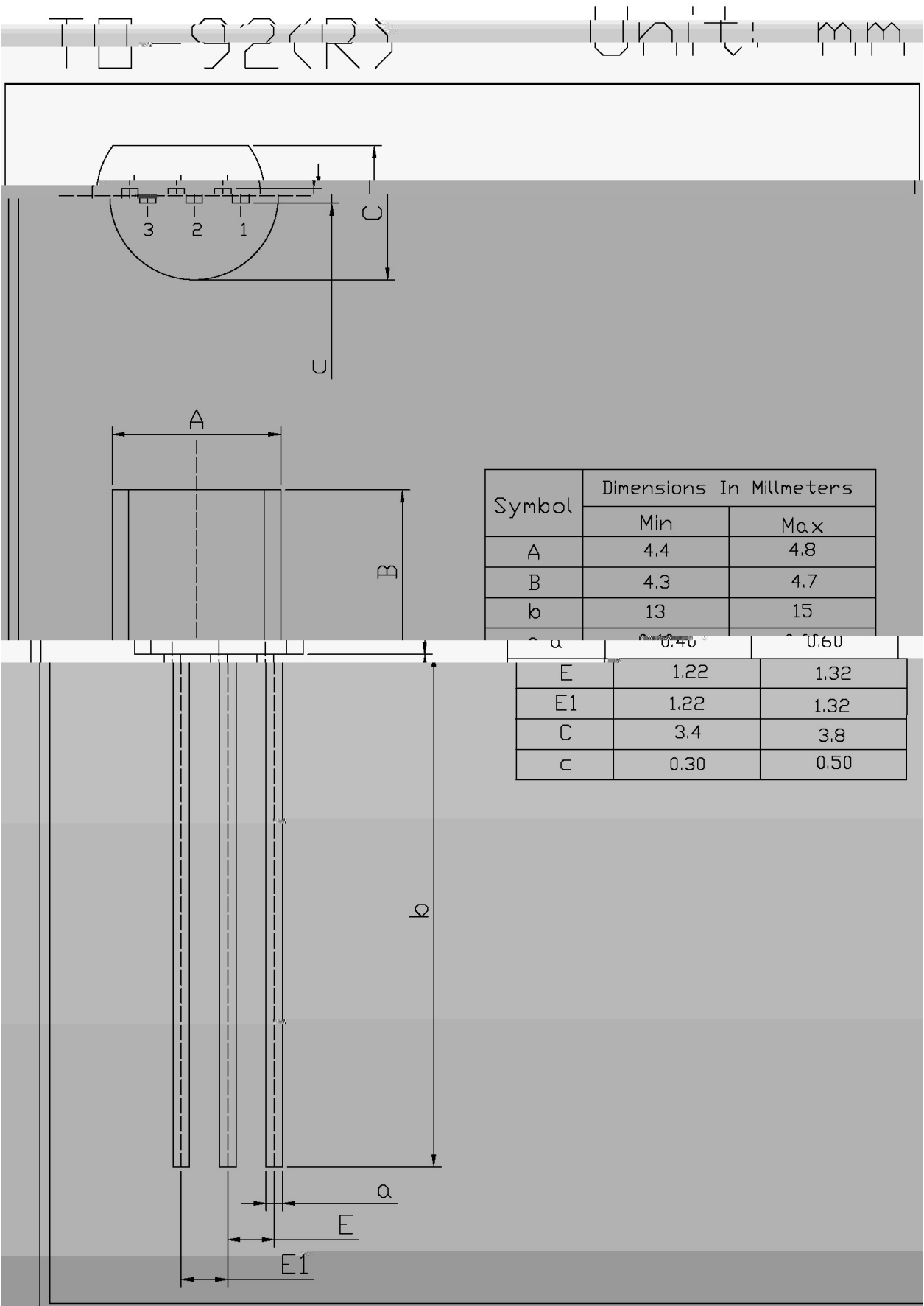
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	100	mA
Emitter Current - Continuous	I_E	-100	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ Electrical Characteristics(Ta=25)

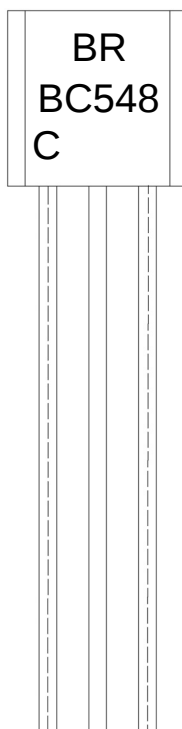
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB}=30V$ $I_E=0$			0.015	A
DC Current Gain	h_{FE}	$V_{CE}=5.0V$ $I_C=2.0mA$	110		800	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA$ $I_B=5.0mA$			0.6	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=100mA$ $I_B=5.0mA$		0.9	1.1	V
Base-Emitter Voltage	$V_{BE(1)}$	$V_{CE}=5.0V$ $I_C=2.0mA$	0.58		0.7	V
	$V_{BE(2)}$	$V_{CE}=5.0V$ $I_C=10mA$			0.75	V
Current Gain Bandwidth Product	f_T	$V_{CE}=5.0V$ $f=100MHz$ $I_C=10mA$		150		MHz
Transition Frequency	C_{ob}	$V_{CB}=10V$ $f=1.0MHz$			4.5	pF
Noise Figure	NF	$V_{CE}=6.0V$ $I_C=0.1mA$ $R_g=10K$ $f=1.0KHz$		1.0	10	dB

BC548

/ Package Dimensions



/ Marking Instructions



BR

BC548

C h_{FE}

Note:

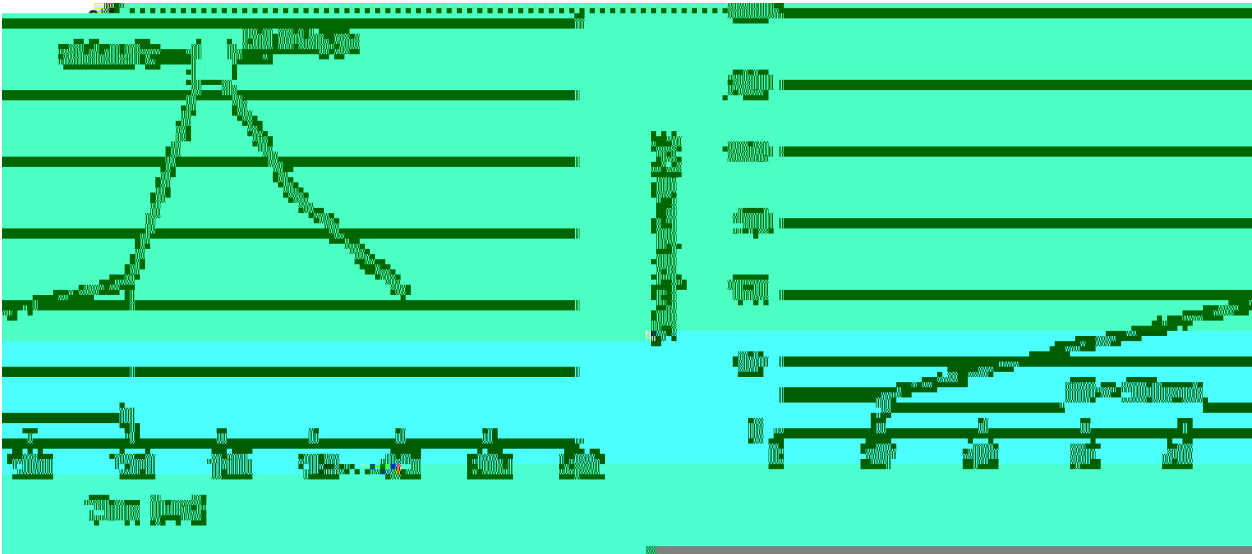
BR: Company Code.

BC548: Product Type.

C h_{FE} Classifications Symbol

****: Lot No. Code, code change with Lot No.

() / Temperature Profile for Dip Soldering(Pb-Free)



- Note:

1.Preheating:25~150 , Time:60~90sec.

2.Peak Temp.:255±5 , Duration:5±0.5sec.

3. Cooling Speed: 2~10 /sec.
- | | | | | |
|---|-------|-----|-----------|--------|
| 1 | 25 | 150 | 60 | 90sec; |
| 2 | 255±5 | | 5±0.5sec; | |
| 3 | | 2 | 10 | /sec. |

270±5 0WÃ0]