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

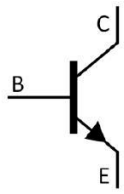
Features

High Voltage, Low Noise.

Applications

General purpose and switching application.

Pinning



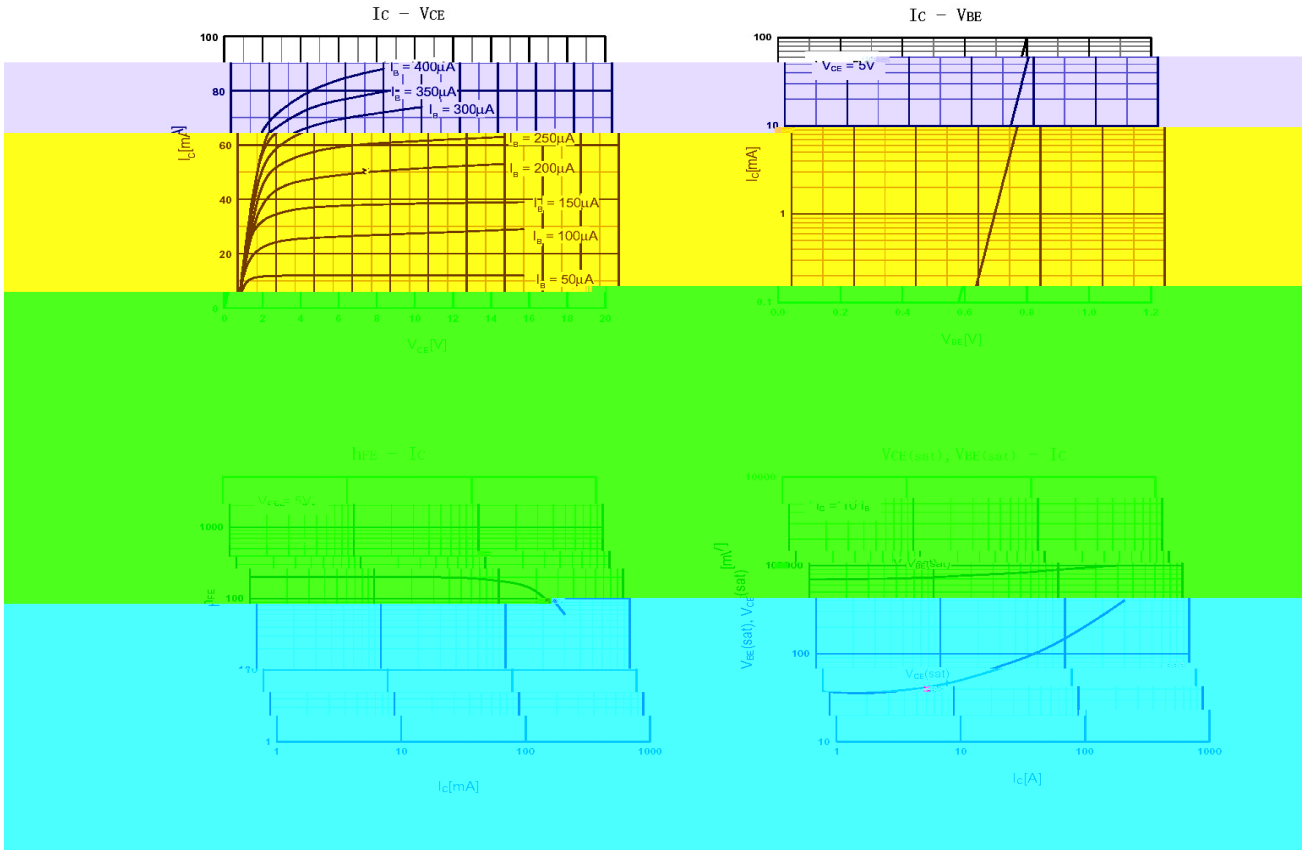
PIN1 Emitter PIN 2 Base PIN 3 Collector

Classification of h_{FE}

h_{FE} Classifications Symbol	A	B	C
h_{FE} Range			

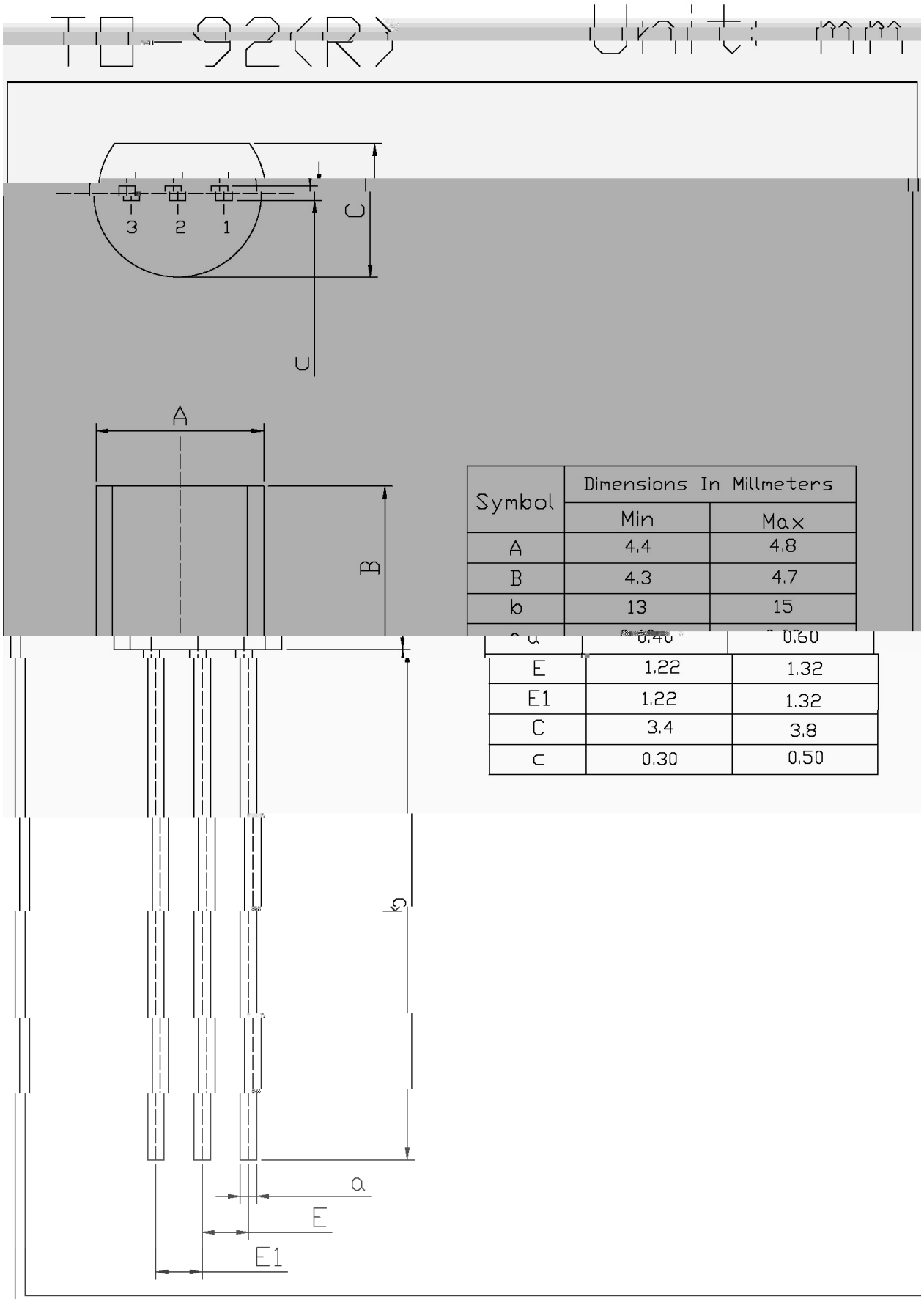
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	50	V
Collector to Emitter Voltage	V_{CEO}	45	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	100	mA
Emitter Current - Continuous	I_E	-100	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55 150	℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	V_{CB}=30V I_E=0			0.015	μA
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 I_C=10mA f=100MHz		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=10KΩ f=1.0KHz		1.0	10	dB

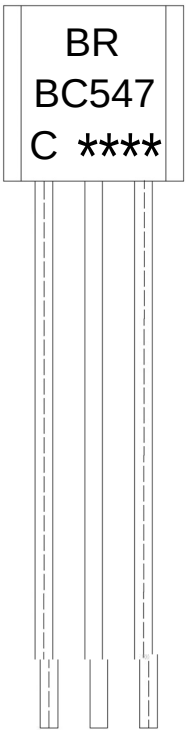

Ic – VCE
Ic – VBE
hFE – Ic
VCE(sat), VBE(sat) – Ic
Cobs – VCB
fT – Ic
IB = 400μA
IB = 350μA
IB = 300μA
IB = 250μA
IB = 200μA
IB = 150μA
IB = 100μA
IB = 50μA
VCE = 5V
f=1MHz
IE = 0
Ic[mA]
VCE[V]
VBE[V]
Ic[A]

TO-92(R)

Unit: mm



Symbol	Dimensions In Millmeters	
	Min	Max
A	4.4	4.8
B	4.3	4.7
b	13	15
a	0.40	0.60
E	1.22	1.32
E1	1.22	1.32
C	3.4	3.8
c	0.30	0.50



h_{FE}

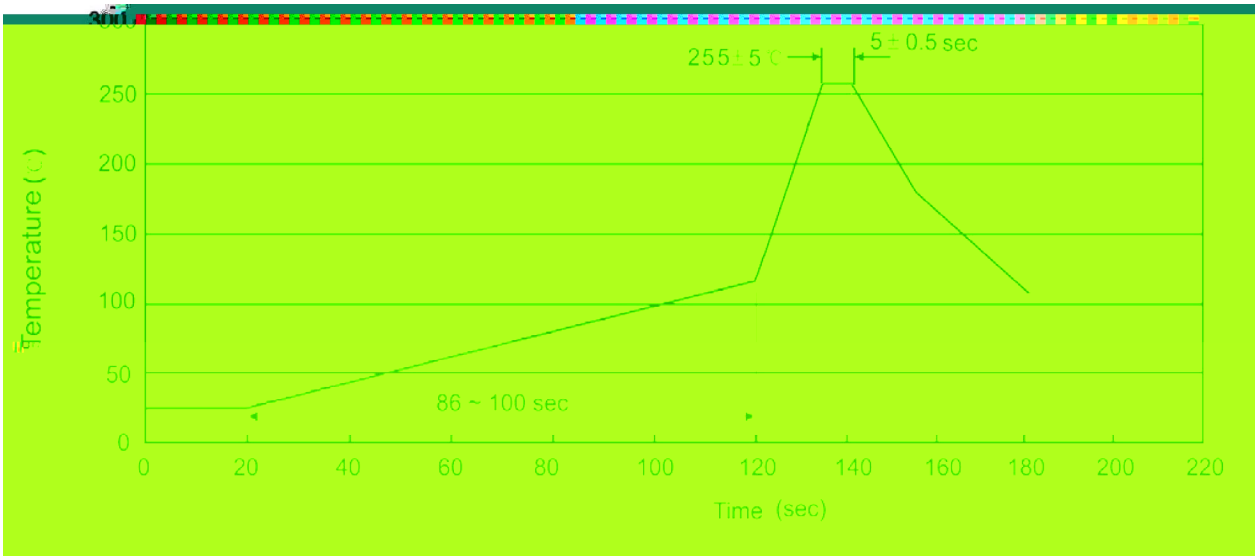
Note:

BR: Company Code.

BC547: Product Type.

C h_{FE} Classifications Symbol

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



	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.

270 5