

BC560

Rev.E Mar.-2016

/ Descriptions

TO-92(R)

PNP

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

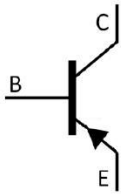
/ Features

High Voltage, Low Noise.

/ Applications

Low noise amplifier application.

/ Equivalent Circuit



/ Pinning



PIN1 Emitter PIN 2 Base PIN 3 Collector

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	A	B
h_{FE} Range	110~220	200~450

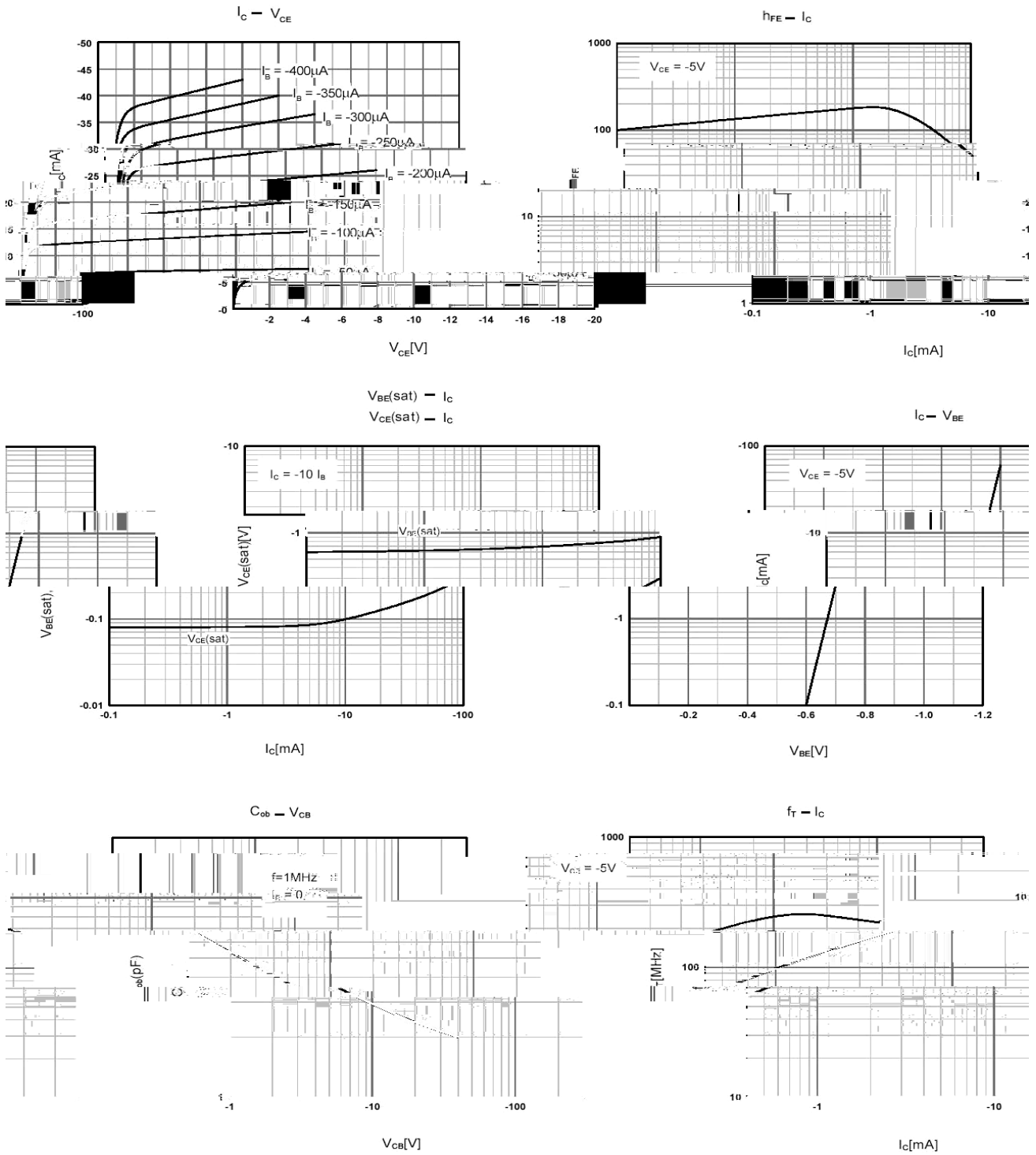
/ Absolute Maximum Ratings(Ta=25)

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}	-5.0	V
Collector Current - Continuous	I_C	-100	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55~150	

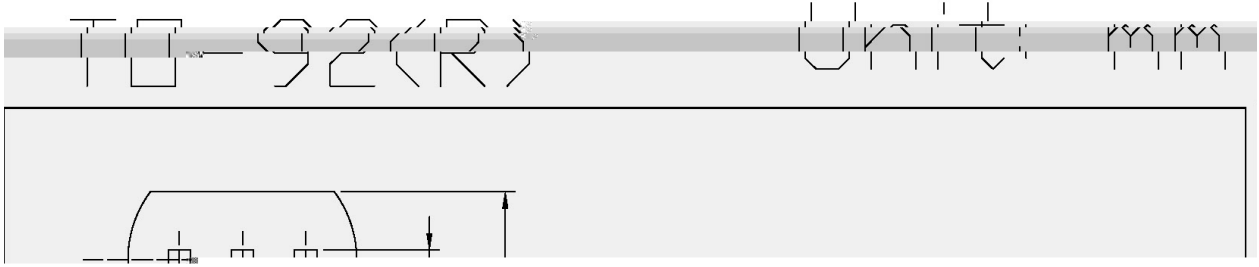
/ Electrical Characteristics(Ta=25)

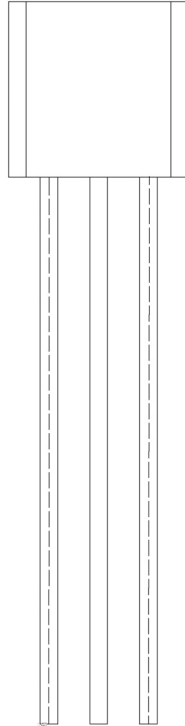
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=-10mA$ $I_B=0$	-45			V
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=-10\mu A$ $I_E=0$	-50			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=-10\mu A$ $I_C=0$	-5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-30V$ $I_E=0$			-0.015	μA
DC Current Gain	h_{FE}	$V_{CE}=-5.0V$ $I_C=-2.0mA$	110		450	
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		V
Base-Emitter Voltage	$V_{BE(on)}$	$V_{CE}=-5.0V$ $I_C=-2.0mA$	-0.55		-0.7	V
Transition Frequency	f_T	$V_{CE}=-5.0V$ $f=100MHz$ $I_C=-10mA$		300		MHz
Current Gain Bandwidth Product	C_{ob}	$V_{CB}=-10V$ $f=1.0MHz$ $I_E=0$			7.0	pF
Noise Figure	NF	$V_{CE}=-5.0V$ $I_C=-200\mu A$ $R_g=10K$ $f=1.0KHz$			4.0	dB

/ Electrical Characteristic Curve

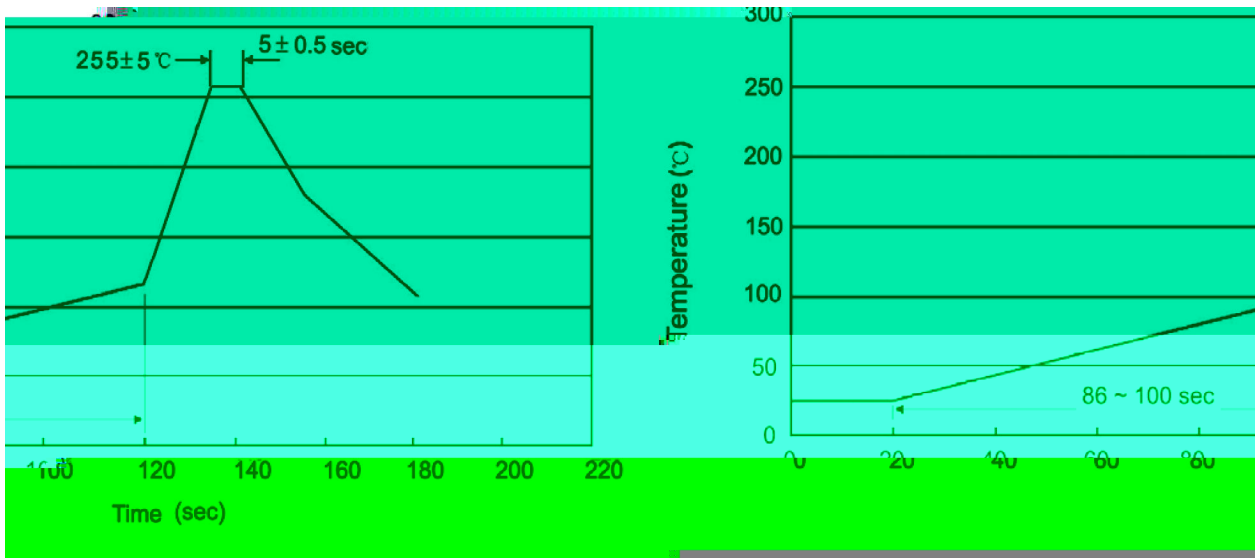


/ Package Dimensions





() / 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 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm3)		
	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
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 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm3)	
	Units/tape 只/纸带	Tape/Inner Box 纸带/盒	Rows/Inner Box 纸带层/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Inner Box 盒	Outer Box 箱
TO-92	3,000	1	120	10	30,000	328×230×42	小箱 480×346×235, 大箱 547×407×268

/ Notices