

/ Descriptions

TO-92 PNP Silicon PNP transistor in a TO-92 Plastic Package.

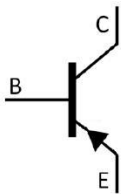
/ Features

Low Leakage current, Low collector saturation voltage.

/ Applications

General amplifier.

/ Equivalent Circuit



/ Pinning



PIN1 Collector PIN 2 Base PIN 3 Emitter

/ hFE Classifications & Marking

See Marking Instructions

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-60	V
Collector to Emitter Voltage	V_{CEO}	-60	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current - Continuous	I_C	-600	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

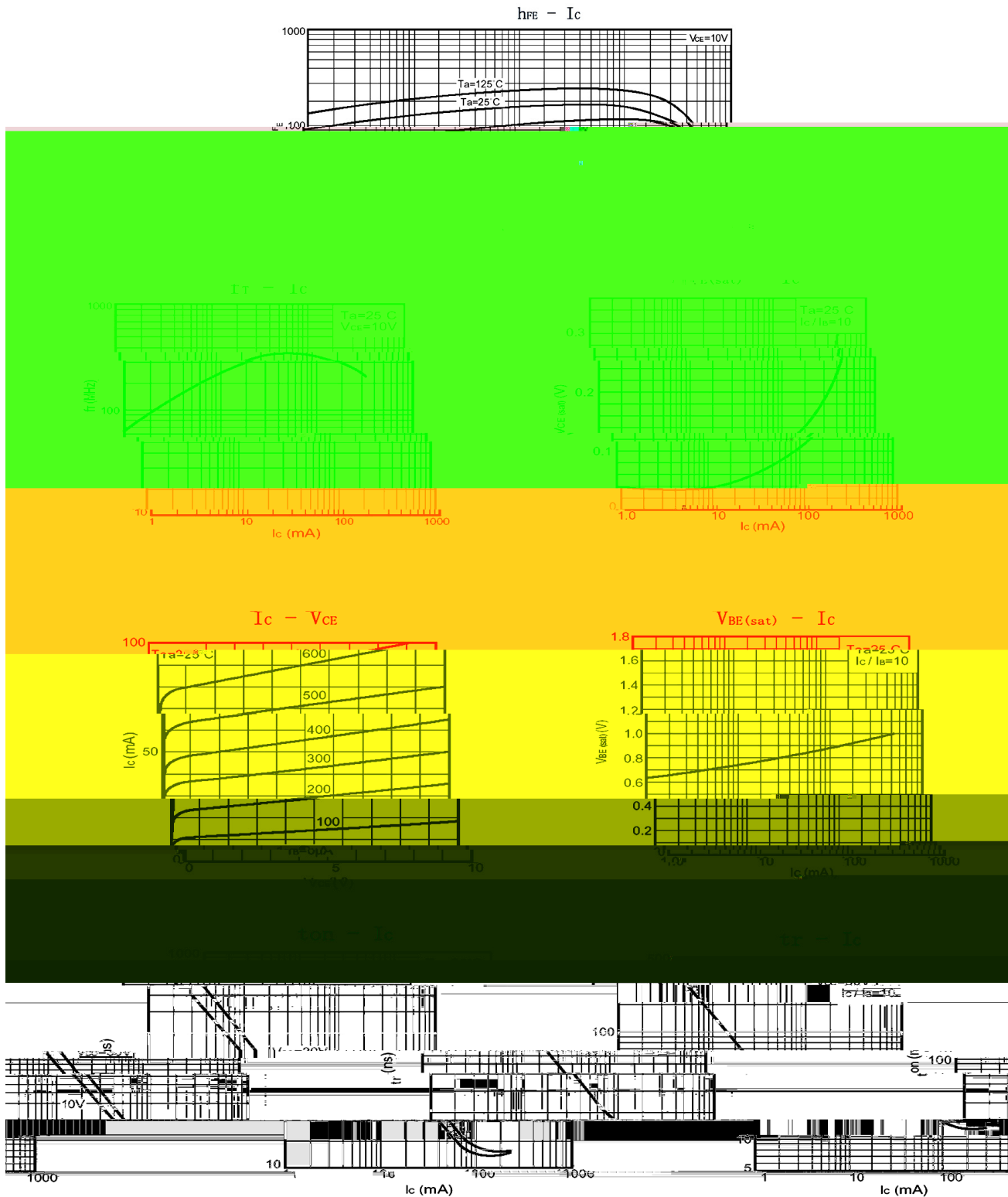
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=-10\mu A$ $I_E=0$	-60			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=-10mA$ $I_B=0$	-60			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}	$V_{CB}=-50V$ $I_E=0$			-0.1	μA
DC Current Gain	$h_{FE(1)*}$	$V_{CE}=-10V$ $I_C=-150mA$	100		300	
	$h_{FE(2)*}$	$V_{CE}=-10V$ $I_C=-500mA$	50			
	$h_{FE(3)}$	$V_{CE}=-10V$ $I_C=-10mA$	100			
	$h_{FE(4)}$	$V_{CE}=-10V$ $I_C=-1.0mA$	100			
	$h_{FE(5)}$	$V_{CE}=-10V$ $I_C=-0.1mA$	75			
Collector-Emitter Saturation Voltage	$V_{CE(sat)(1)*}$	$I_C=-150mA$ $I_B=-15mA$			-0.4	V
	$V_{CE(sat)(2)*}$	$I_C=-500mA$ $I_B=-50mA$			-1.6	V
Base-Emitter Saturation Voltage	$V_{BE(sat)(1)*}$	$I_C=-150mA$ $I_B=-15mA$			-1.3	V
	$V_{BE(sat)(2)*}$	$I_C=-500mA$ $I_B=-50mA$			-2.6	V
Transition Frequency	f_T	$V_{CE}=-20V$ $I_C=-50mA$ $f=100MHz$	200			MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=-10V$ $I_E=0$ $f=0.1MHz$			30	pF
Turn-On Time	T_{on}	$V_{CC}=-30V$ $V_{BE(off)}=-1.5V$ $I_C=-150mA$ $I_{B1}=-15mA$			0.05	μs
Turn-Off Time	T_{off}	$V_{CC}=-30V$ $I_C=-150mA$ $I_{B1}=I_{B2}=-15mA$			0.1	μs

*Pulse test: pulse width $\leq 300\mu s$, duty cycle $\leq 2.0\%$

* : $\leq 300\mu s$, $\leq 2.0\%$

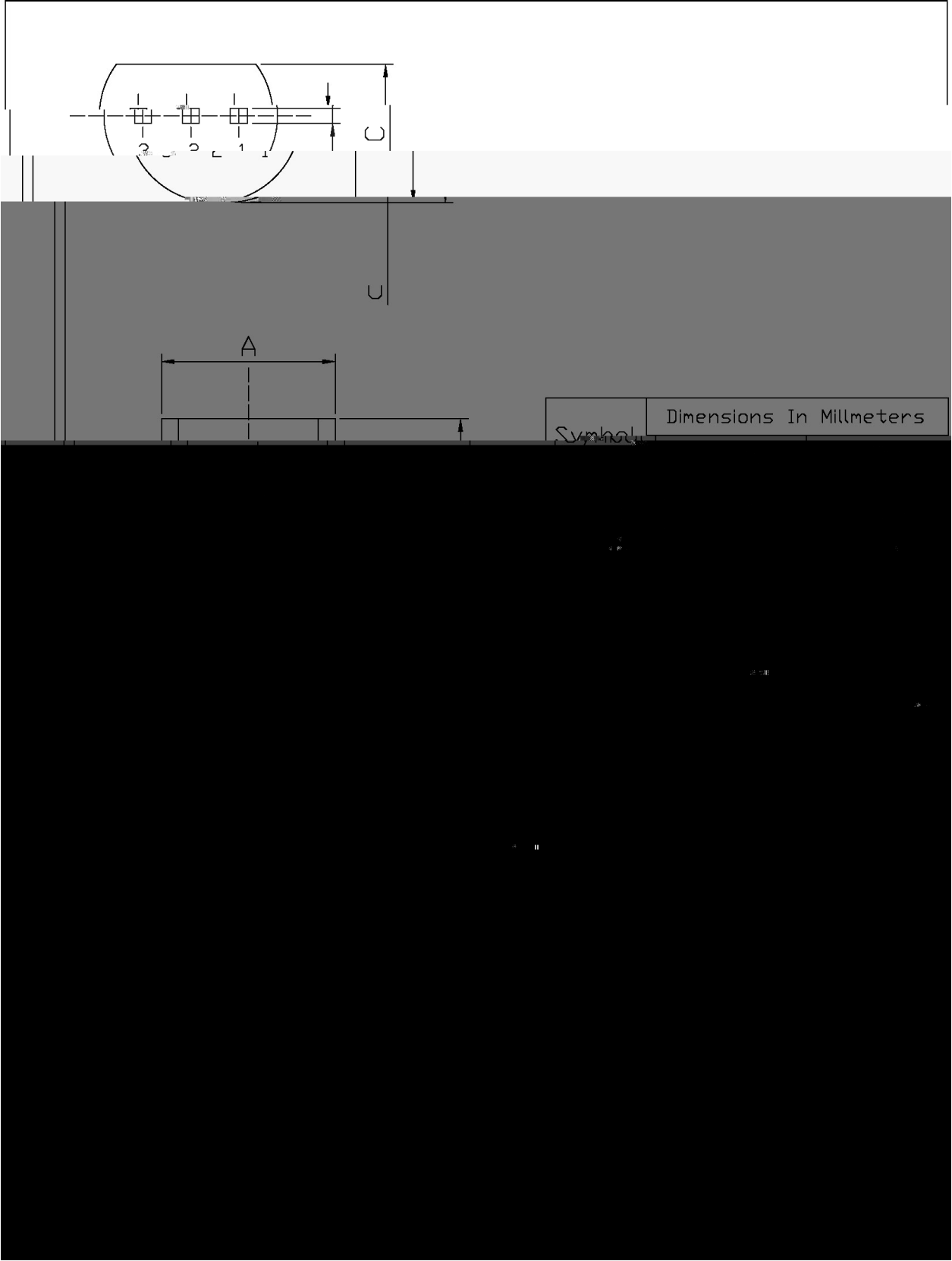
/ Electrical Characteristic Curve



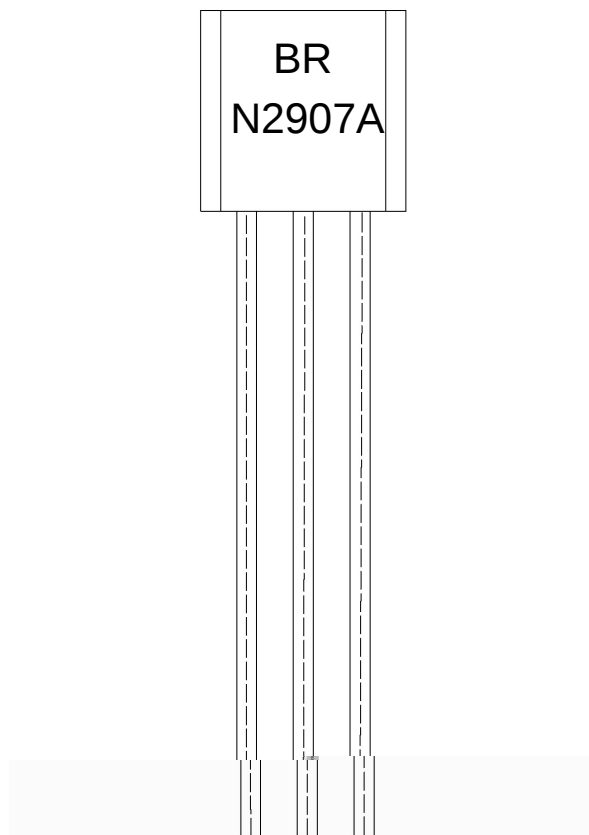
/ Package Dimensions

TO-92

Unit: mm



/ Marking Instructions



BR:

N2907A

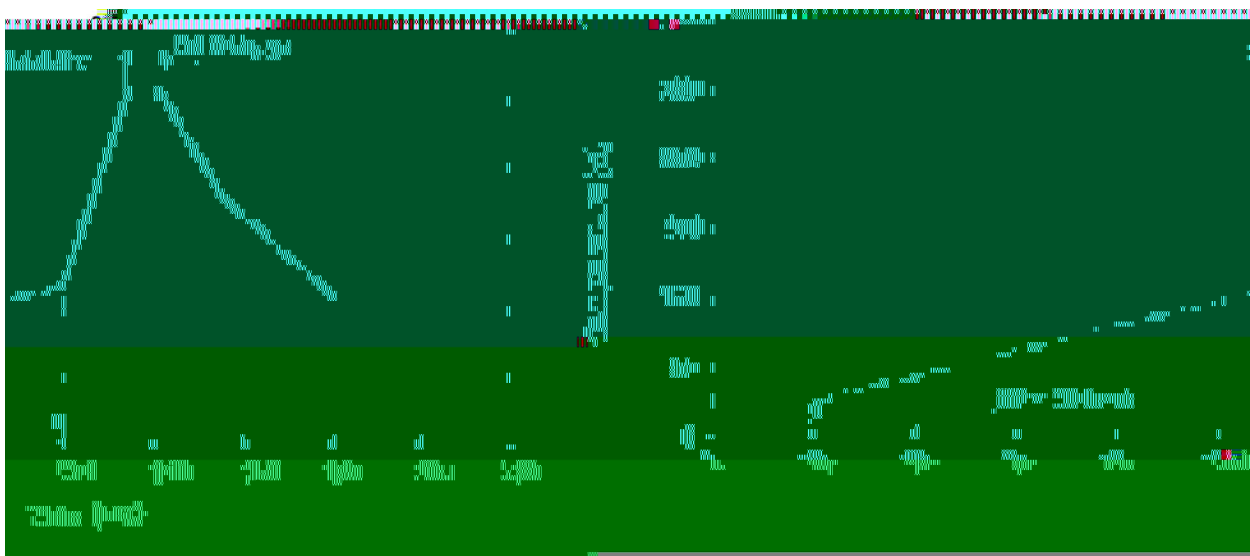
Note:

BR: Company Code.

N2907A: Product Type.

****: 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 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm3)		
	只袋	袋盒	只盒	盒箱	只箱	袋	盒	箱

/ AMMO

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm3)	
	只纸带	纸带盒	纸带层盒	盒箱	只箱	盒	箱
							小箱 , 大箱

/ Notices