

**/ Descriptions**

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

**/ Features**

Low current, Low voltage. HF Product.

**/ Applications**

General purpose amplifier.

**/ Equivalent Circuit**



PIN1   Collector          PIN 2   Base          PIN 3   Emitter

**/ h<sub>FE</sub> Classifications & Marking**

See Marking Instructions.

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	-40	V
Collector to Emitter Voltage	$V_{CEO}$	-40	V
Emitter to Base Voltage	$V_{EBO}$	-5.0	V
Collector Current - Continuous	$I_C$	-200	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 to Base Breakdown Voltage	$V_{CBO}$	$I_C=-10\mu A$ $I_E=0$	-40			V
Collector to Emitter Breakdown Voltage	$V_{CEO}$	$I_C=-1.0mA$ $I_B=0$	-40			V
Emitter to Base Breakdown Voltage	$V_{EBO}$	$I_E=-10\mu A$ $I_C=0$	-5.0			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=-40V$ $I_E=0$			-0.1	$\mu A$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=-5.0V$ $I_C=0$			-0.1	$\mu A$
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-1.0V$ $I_C=-10mA$	100		300	
	$h_{FE(2)}$	$V_{CE}=-1.0V$ $I_C=-100mA$	30			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-50mA$ $I_B=-5.0mA$			-0.4	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-50mA$ $I_B=-5.0mA$			-0.95	V
Current Gain Bandwidth Product	$f_T$	$I_C=-10mA$ $f=100MHz$ $V_{CE}=-20V$	250			MHz
Output Capacitance	$C_{ob}$	$V_{CB}=-5.0V$ $I_E=0$ $f=100KHz$			4.5	pF
Turn On Time	$T_{on}$	$V_{CC}=-3.0V$ $V_{BE}=-0.5V$ $I_C=-10mA$ $I_{B1}=-1.0mA$			0.07	$\mu s$
Turn Off Time	$T_{off}$	$V_{CC}=-3.0V$ $I$				

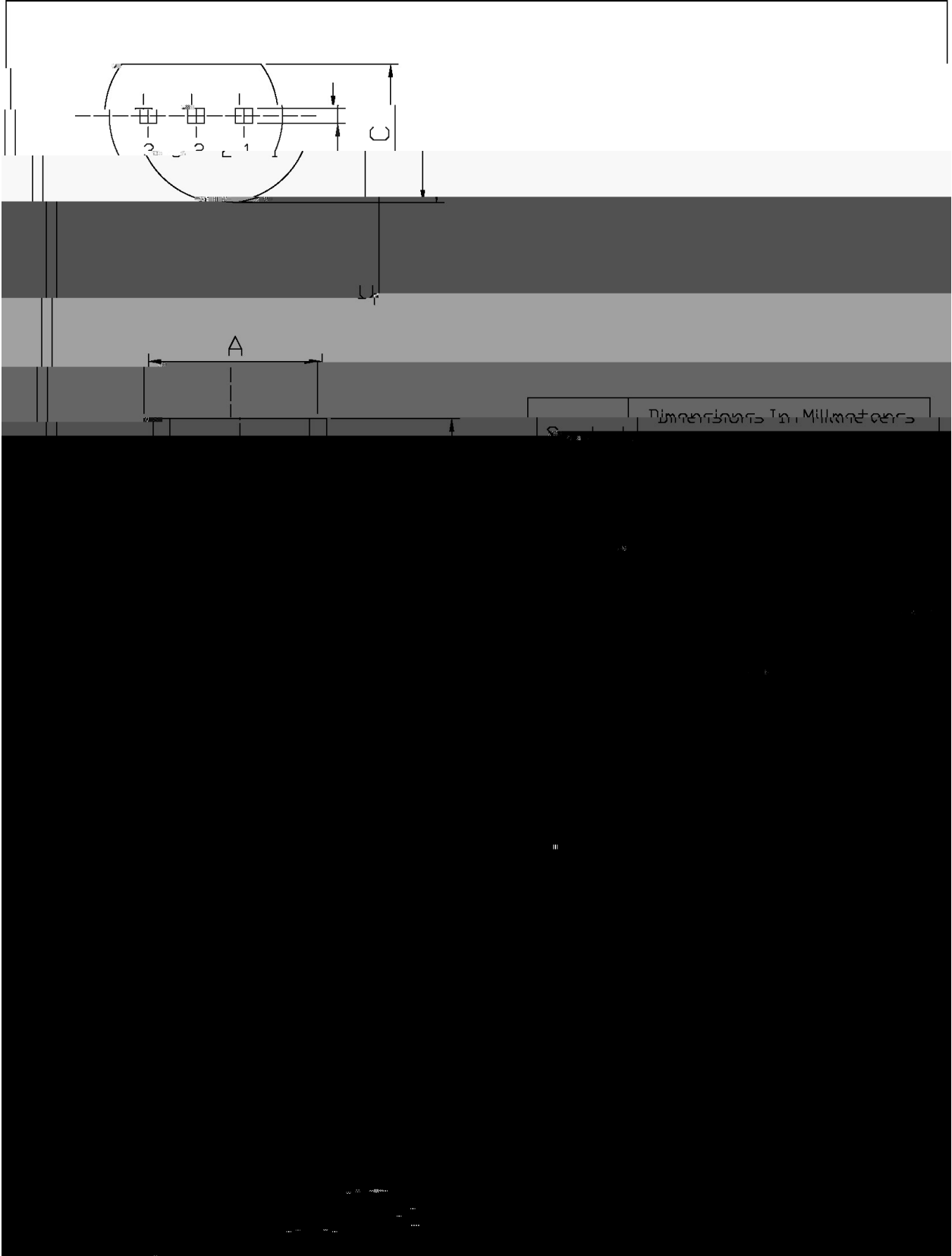
**2N3906G**  
Rev.E Mar.-2016

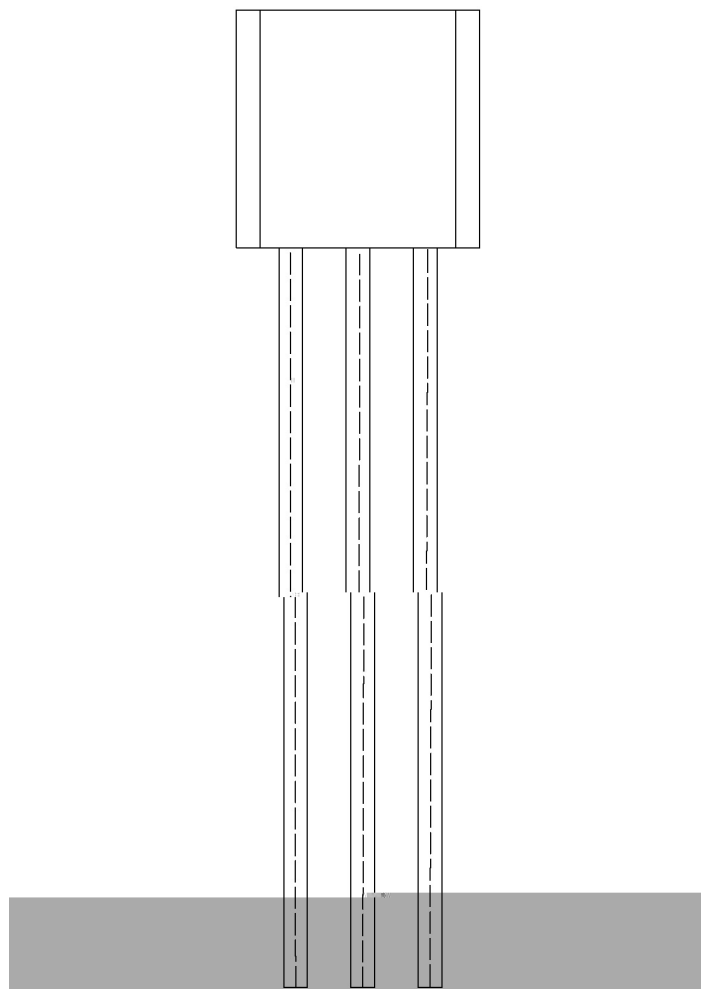
**/ Electrical Characteristic Curve**

/ Package Dimensions

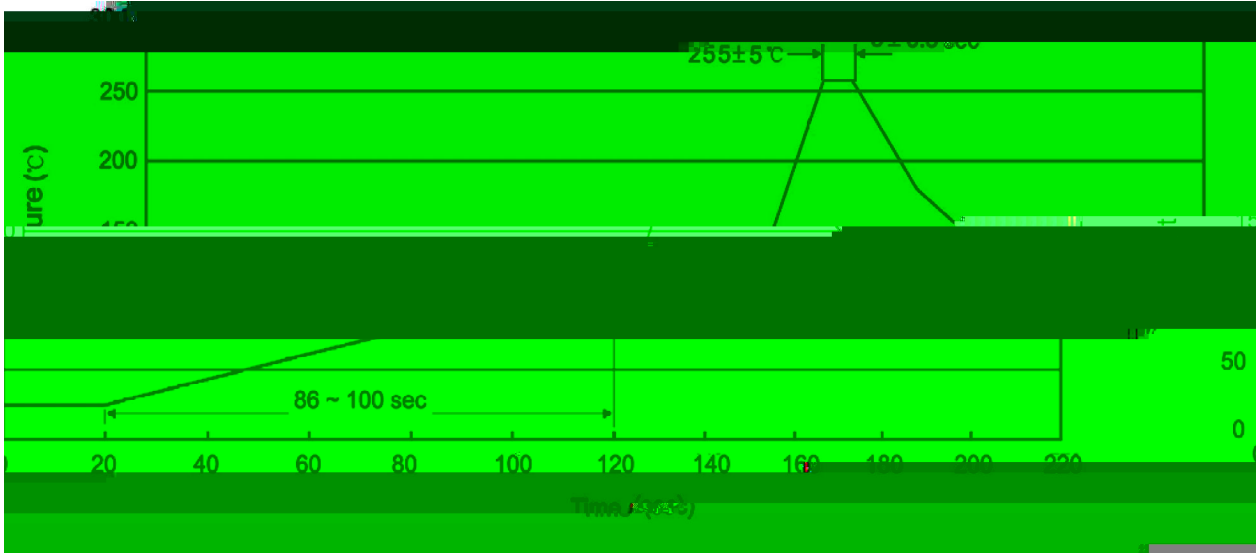
TO-92

Unit: mm





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



- |   |       |     |           |          |   |                                      |
|---|-------|-----|-----------|----------|---|--------------------------------------|
| 1 | 25    | 150 | 60        | 90sec;   | Note:                                   | 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 mm <sup>3</sup> )

/ AMMO

Package Type	Units				Dimension			(unit mm <sup>3</sup> )