

/ Descriptions

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

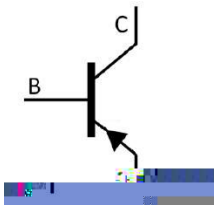
/ Features

Low current, Low voltage. HF Product.

/ Applications

General purpose amplifier.

/ Equivalent Circuit



PIN1 Collector PIN 2 Base PIN 3 Emitter

/ h_{FE} 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	

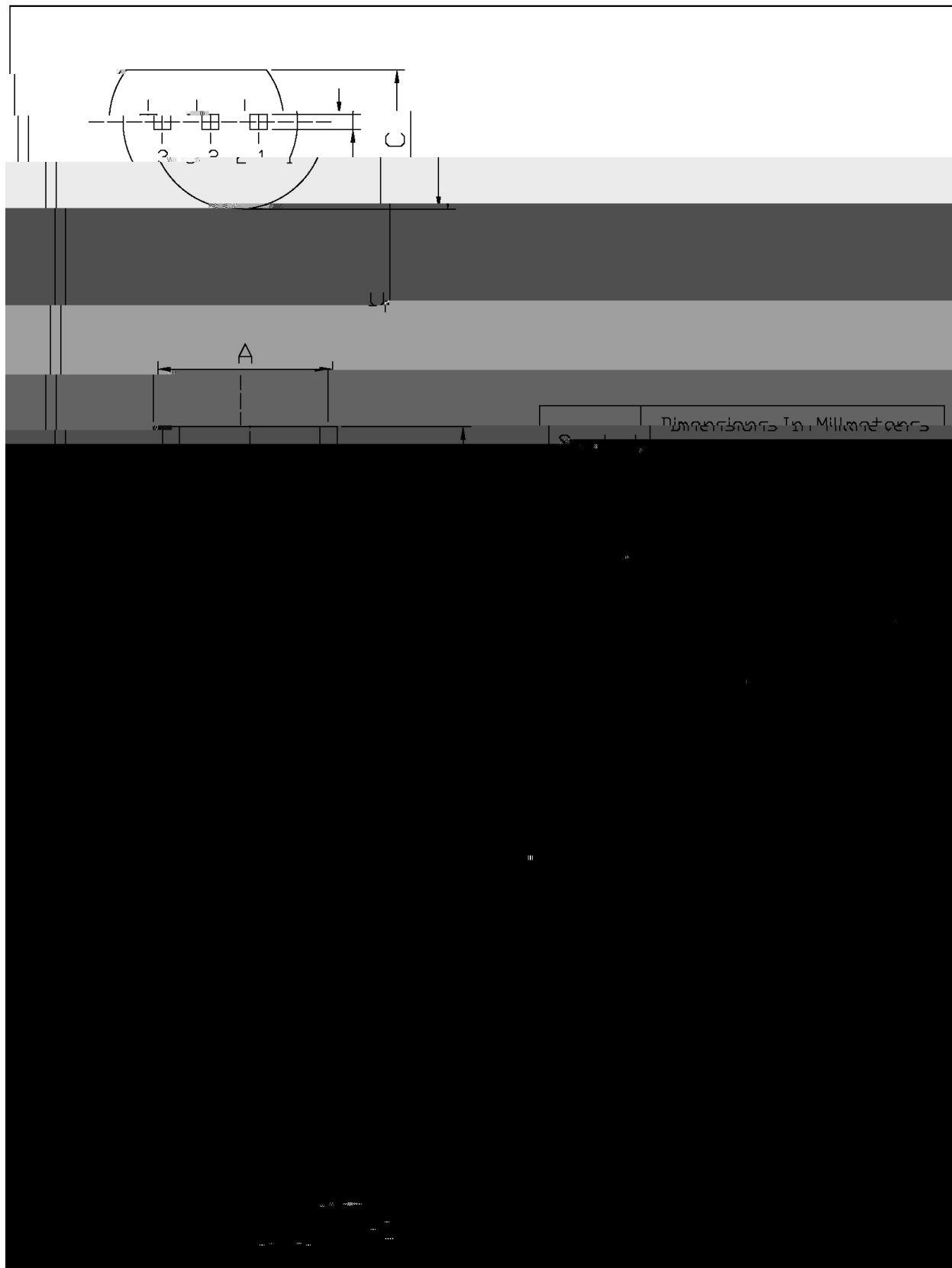
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C = -10\mu A$ $I_E = 0$	-40			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C = -1.0mA$ $I_B = 0$	-40			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E = -10\mu A$ $I_C = 0$	-5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB} = -40V$ $I_E = 0$			-0.1	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = -5.0V$ $I_C = 0$			-0.1	μA
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}	$V_{CC} = -3.0V$ $I_C = -10mA$ $V_{BE} = -0.5V$ $I_{B1} = -1.0mA$			0.07	μs
Turn Off Time	T_{off}	$V_{CC} = -3.0V$ I				

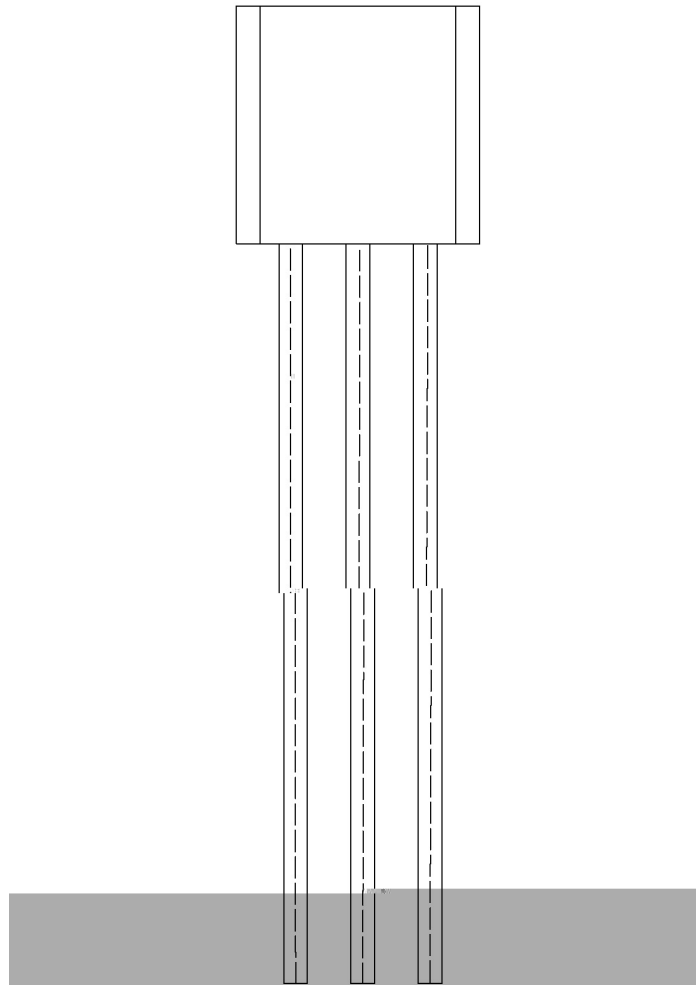
/ Electrical Characteristic Curve

/ Package Dimensions

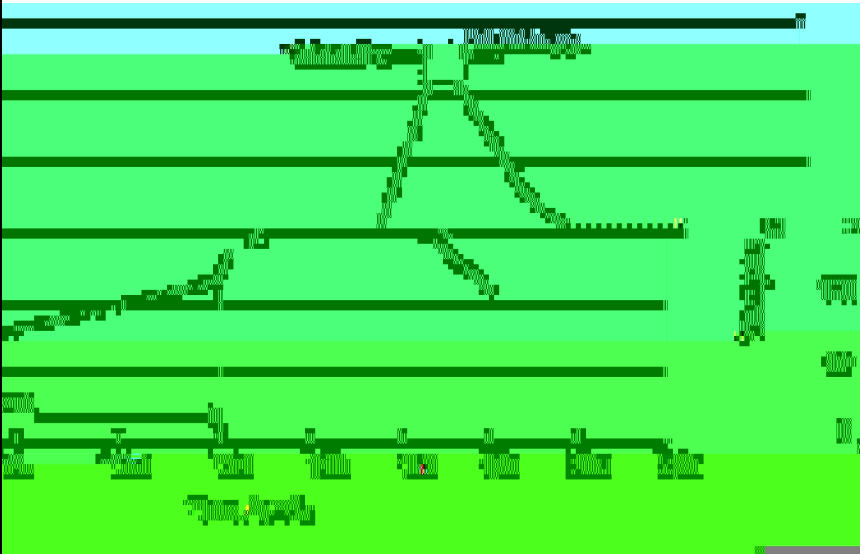
TO-92

Unit: mm





Temperature Profile for Dip Soldering(Pb-Free)



Note:

- 60~90sec;

5±0.5sec;

°C/sec.
- 1.Preheating:25~150 °C, Time:60~90sec.

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

3. Cooling Speed: 2~10 °C/sec.

Reference to Soldering Heat Test Conditions

10±1 sec.

Temp.:270±5 °C

Time:10±1 sec

Units			Dimension (unit: mm)		

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