

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

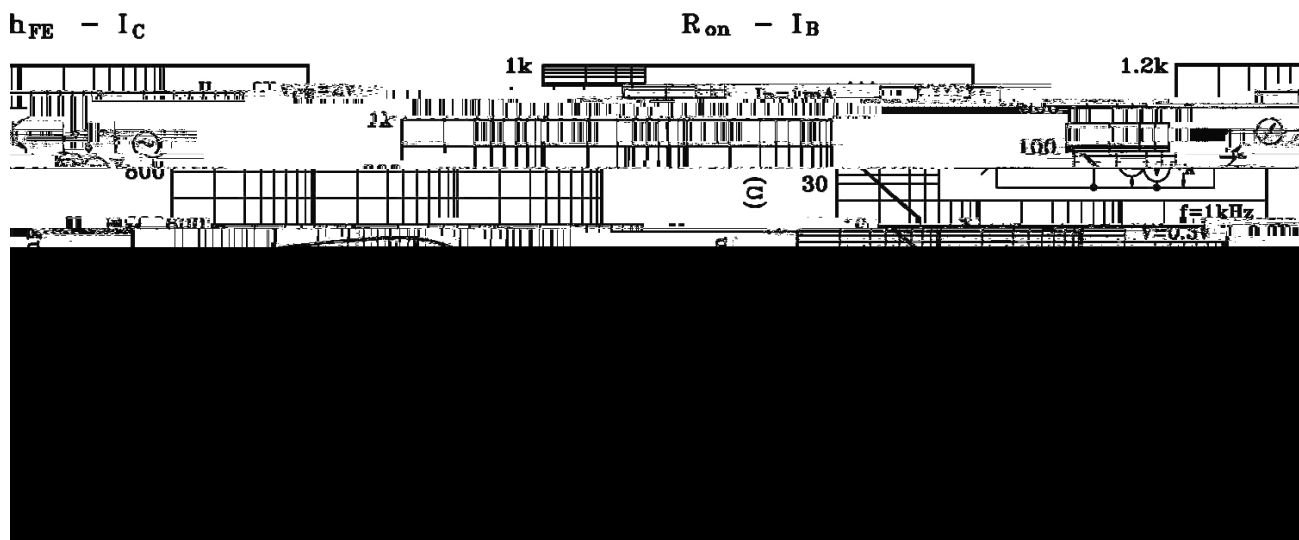
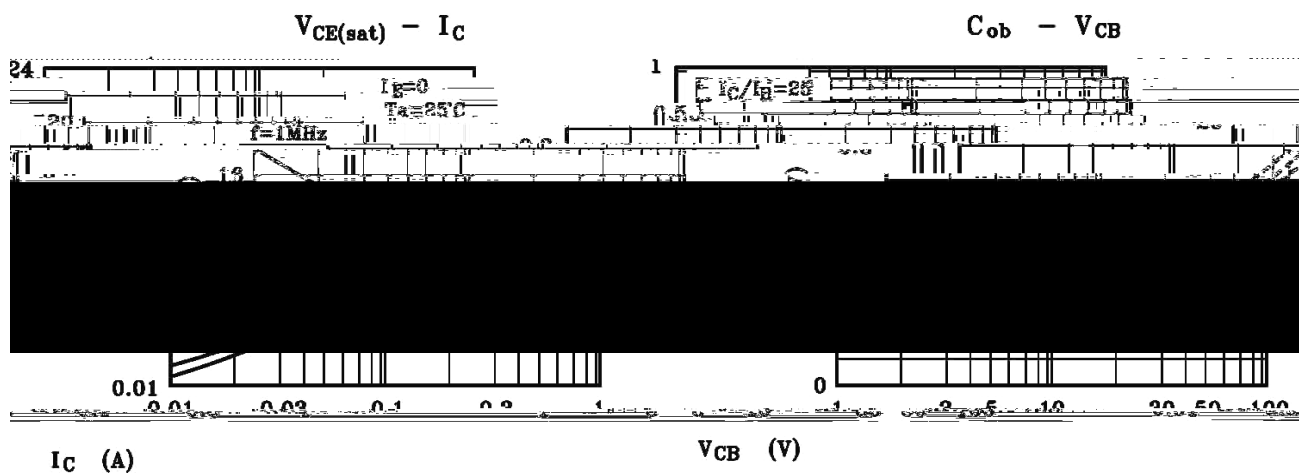
: $R_{on}=0.6\Omega(Typ.)(I_B=1.0mA)$

Low on Resistance:  $R_{on}=0.6\Omega(Typ.)(I_B=1.0mA)$ .

| Parameter                      | Symbol    | Rating    | Unit |
|--------------------------------|-----------|-----------|------|
| Collector to Base Voltage      | $V_{CB0}$ | 25        | V    |
| Collector to Emitter Voltage   | $V_{CEO}$ | 20        | V    |
| Emitter to Base Voltage        | $V_{EBO}$ | 9.0       | V    |
| Collector Current - Continuous | $I_C$     | 300       | mA   |
| Base Current – Continuous      | $I_B$     | 30        | 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               | $I_{CBO}$     | $V_{CB}=25V$ $I_E=0$      |     |     | 0.1  | $\mu A$ |
| Emitter Cut-Off Current                 | $I_{EBO}$     | $V_{EB}=9.0V$ $I_C=0$     |     |     | 0.1  | $\mu A$ |
| DC Current Gain                         | $h_{FE}$      | $V_{CE}=2.0V$ $I_C=4.0mA$ | 200 |     | 800  |         |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=100mA$ $I_B=10mA$    |     |     | 0.25 | V       |

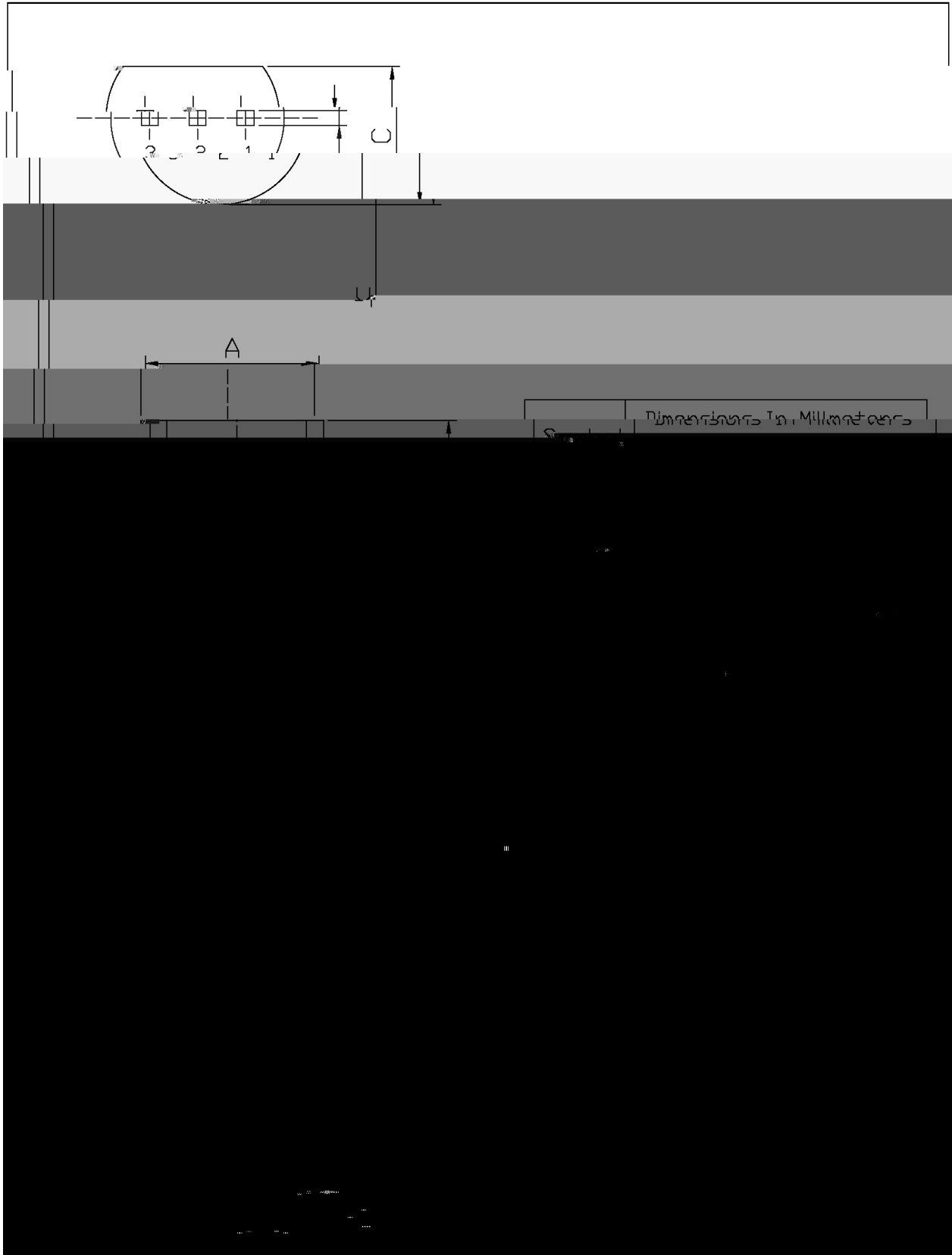
/ Electrical Characteristic Curve



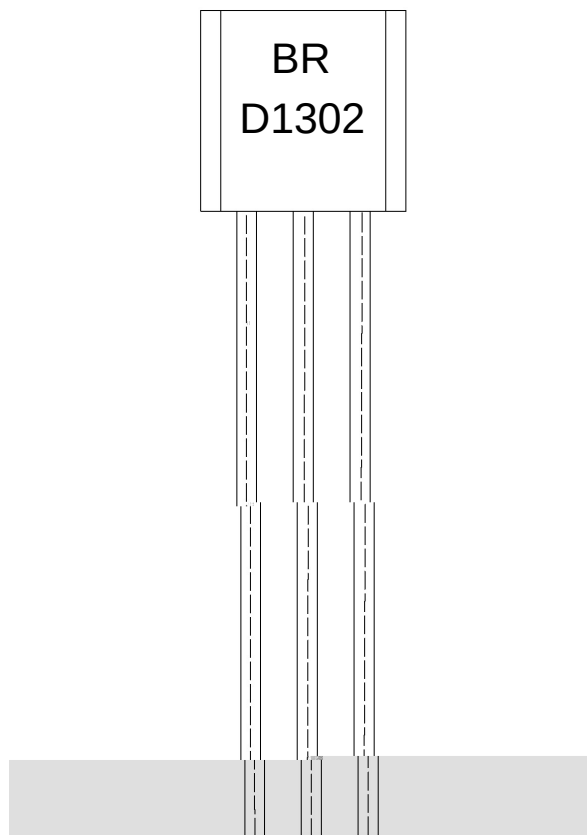
/ Package Dimensions

T0-92

Unit: mm



/ Marking Instructions



BR:

D1302

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Note:

BR: Company Code.

D1302: 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<br>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<br>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 ,<br>大箱 |

/ Notices