

### / Descriptions

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

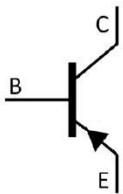
### / Features

KTC1027  
Complementary pair with KTC1027.

### / Applications

High voltage application.

### / Equivalent Circuit



### / Pinning



PIN1   Base          PIN 2   Collector          PIN 3   Emitter

### / $h_{FE}$ Classifications & Marking

|                                    |        |         |
|------------------------------------|--------|---------|
| $h_{FE}$ Classifications<br>Symbol | O      | Y       |
| $h_{FE}$ Range                     | 80~160 | 120~240 |

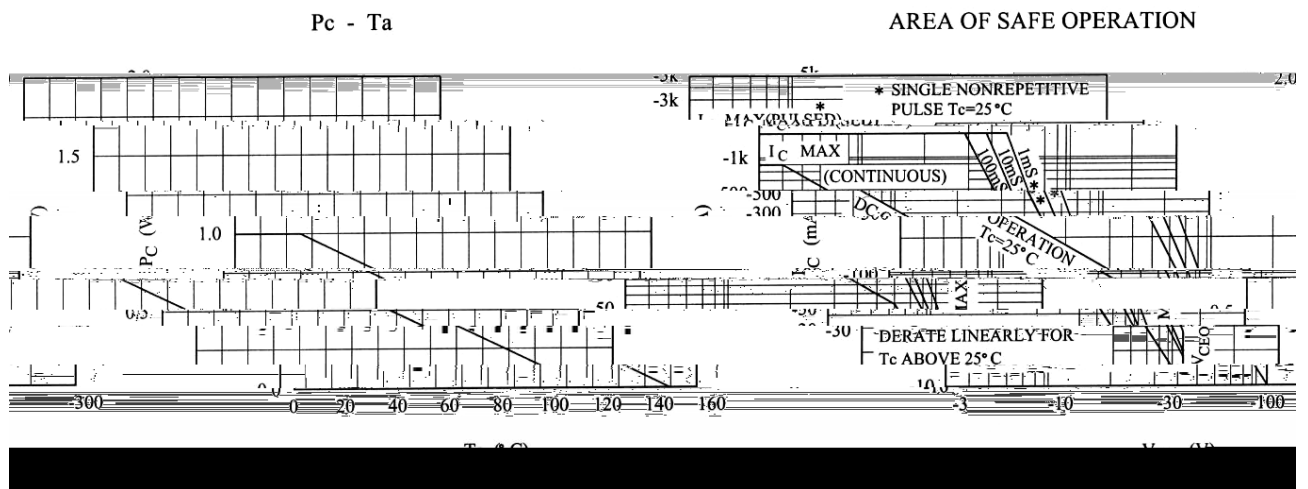
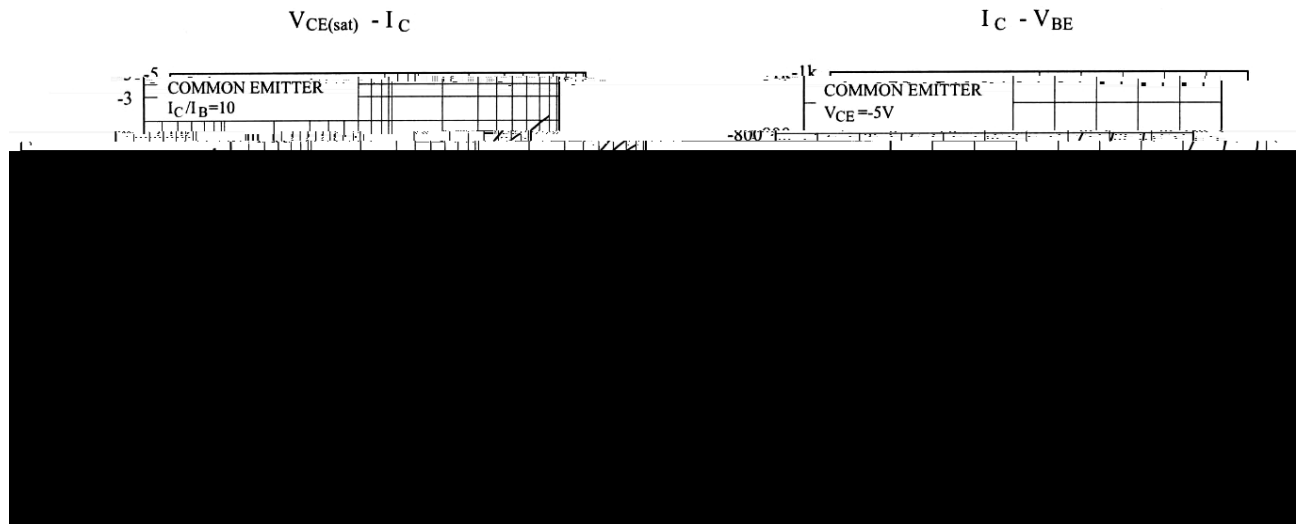
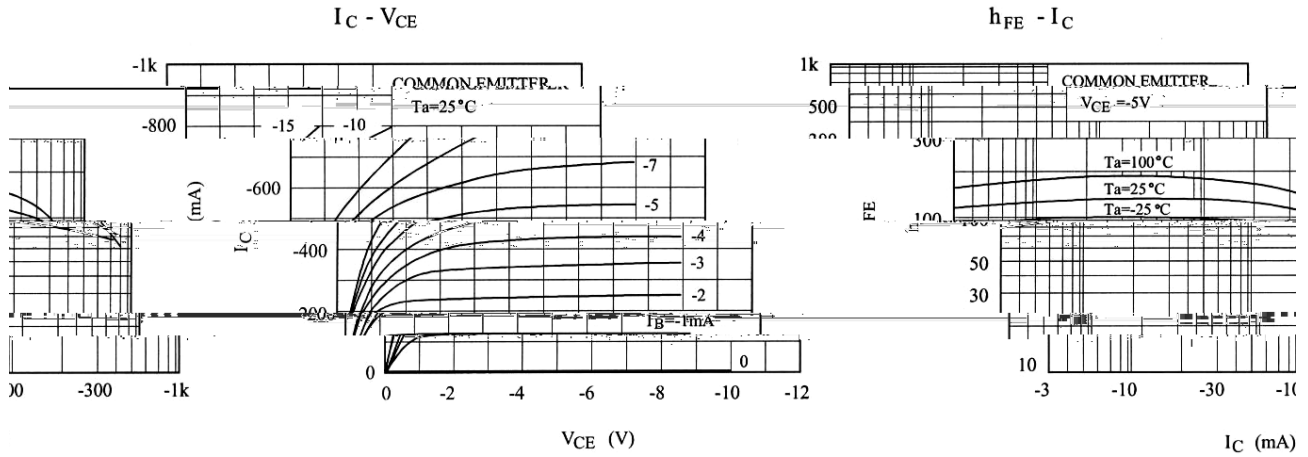
**/ Absolute Maximum Ratings(Ta=25 )**

| Parameter                      | Symbol    | Rating  | Unit |
|--------------------------------|-----------|---------|------|
| Collector to Base Voltage      | $V_{CBO}$ | -120    | V    |
| Collector to Emitter Voltage   | $V_{CEO}$ | -120    | V    |
| Emitter to Base Voltage        | $V_{EBO}$ | -5.0    | V    |
| Collector Current - Continuous | $I_C$     | -800    | mA   |
| Emitter Current - Continuous   | $I_E$     | 800     | mA   |
| Collector Power Dissipation    | $P_C$     | 1.0     | W    |
| Junction Temperature           | $T_j$     | 150     | °C   |
| Storage Temperature Range      | $T_{stg}$ | -55 150 | °C   |

**/ Electrical Characteristics(Ta=25 )**

| Parameter                               | Symbol        | Test Conditions                  | Min  | Typ | Max  | Unit |
|-----------------------------------------|---------------|----------------------------------|------|-----|------|------|
| Collector to Emitter Breakdown Voltage  | $V_{CEO}$     | $I_C=-10mA$ $I_B=0$              | -120 |     |      | V    |
| Collector to Base Breakdown Voltage     | $V_{EBO}$     | $I_E=-1mA$ $I_C=0$               | -5.0 |     |      | V    |
| Collector Cut-Off Current               | $I_{CBO}$     | $V_{CB}=-120V$ $I_E=0$           |      |     | -0.1 | μA   |
| Emitter Cut-Off Current                 | $I_{EBO}$     | $V_{EB}=-5.0V$ $I_C=0$           |      |     | -0.1 | μA   |
| DC Current Gain                         | $h_{FE}$      | $V_{CE}=-5.0V$ $I_C=-100mA$      | 80   |     | 240  |      |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=-500mA$ $I_B=-50mA$         |      |     | -1.0 | V    |
| Base to Emitter Voltage                 | $V_{BE}$      | $V_{CE}=-5.0V$ $I_C=-500mA$      |      |     | -1.0 | V    |
| Transition Frequency                    | $f_T$         | $V_{CE}=-5.0V$ $I_C=-150mA$      |      | 120 |      | MHz  |
| Collector output capacitance            | $C_{ob}$      | $V_{CB}=-10V$ $I_E=0$ $f=1.0MHz$ |      |     | 40   | pF   |

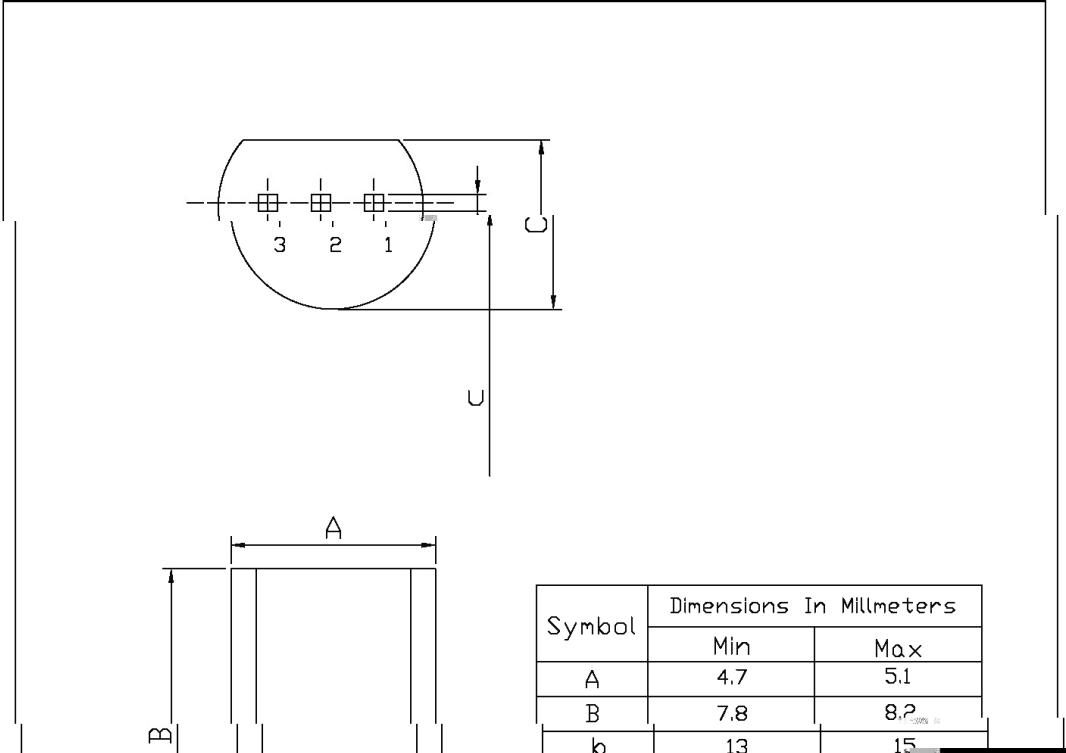
/ Electrical Characteristic Curve



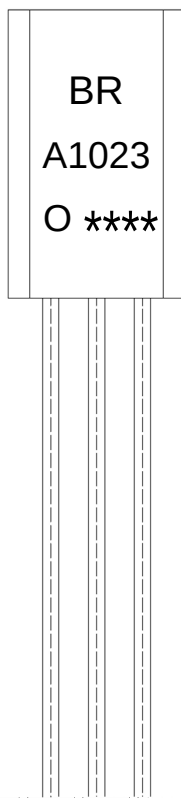
/ Package Dimensions

T0-92LM

Unit: mm



/ Marking Instructions



BR:

A1023

O:  $h_{FE}$

\*\*\*\*

Note:

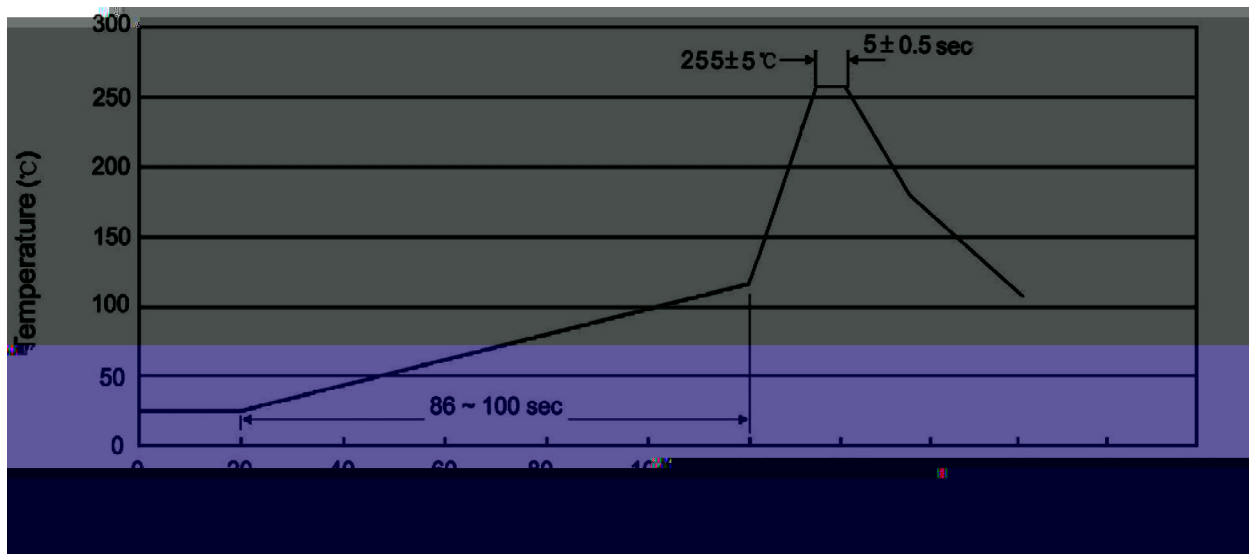
BR: Company Code.

A1023: Product Type.

O:  $h_{FE}$  Classifications Symbol

\*\*\*\*: 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) |             |             |
|----------------------|------------------|-----------------------|------------------------|------------------------------|------------------------|----------------------------|-------------|-------------|
|                      | Units/Bag<br>只/袋 | Bags/Inner Box<br>袋/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>只/箱 | Bag 袋                      | Inner Box 盒 | Outer Box 箱 |
| TO-92LM              | 1,000            | 8                     | 8,000                  | 5                            | 40,000                 | 135×190                    | 237×172×102 | 560×245×195 |

/ AMMO

| Package Type<br>封装形式 | Units 包装数量         |                        |                         |                              |                        | Dimension 包装尺寸 (unit: mm3) |                                  |  |
|----------------------|--------------------|------------------------|-------------------------|------------------------------|------------------------|----------------------------|----------------------------------|--|
|                      | Units/tape<br>只/纸带 | Tape/Inner Box<br>纸带/盒 | Rows/Inner Box<br>纸带层/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>只/箱 | Inner Box 盒                | Outer Box 箱                      |  |
| TO-92LM              | 2,500              | 1                      | 100                     | 10                           | 25,000                 | 328×230×42                 | 小箱 480×346×235<br>大箱 547×407×268 |  |