# KTC3200

Rev.E Mar.-2016

**DATA SHEET**

## / Descriptions

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

## / Features

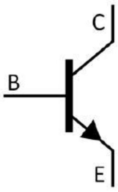
$h_{FE}$,

Low noise, high $h_{FE}$, high breakdown voltage.

## / Applications

Low noise audio amplifier application.

## / Equivalent Circuit



## / Pinning

PIN1 Base PIN 2 Collector PIN 3 Emitter

## / hFE Classifications & Marking

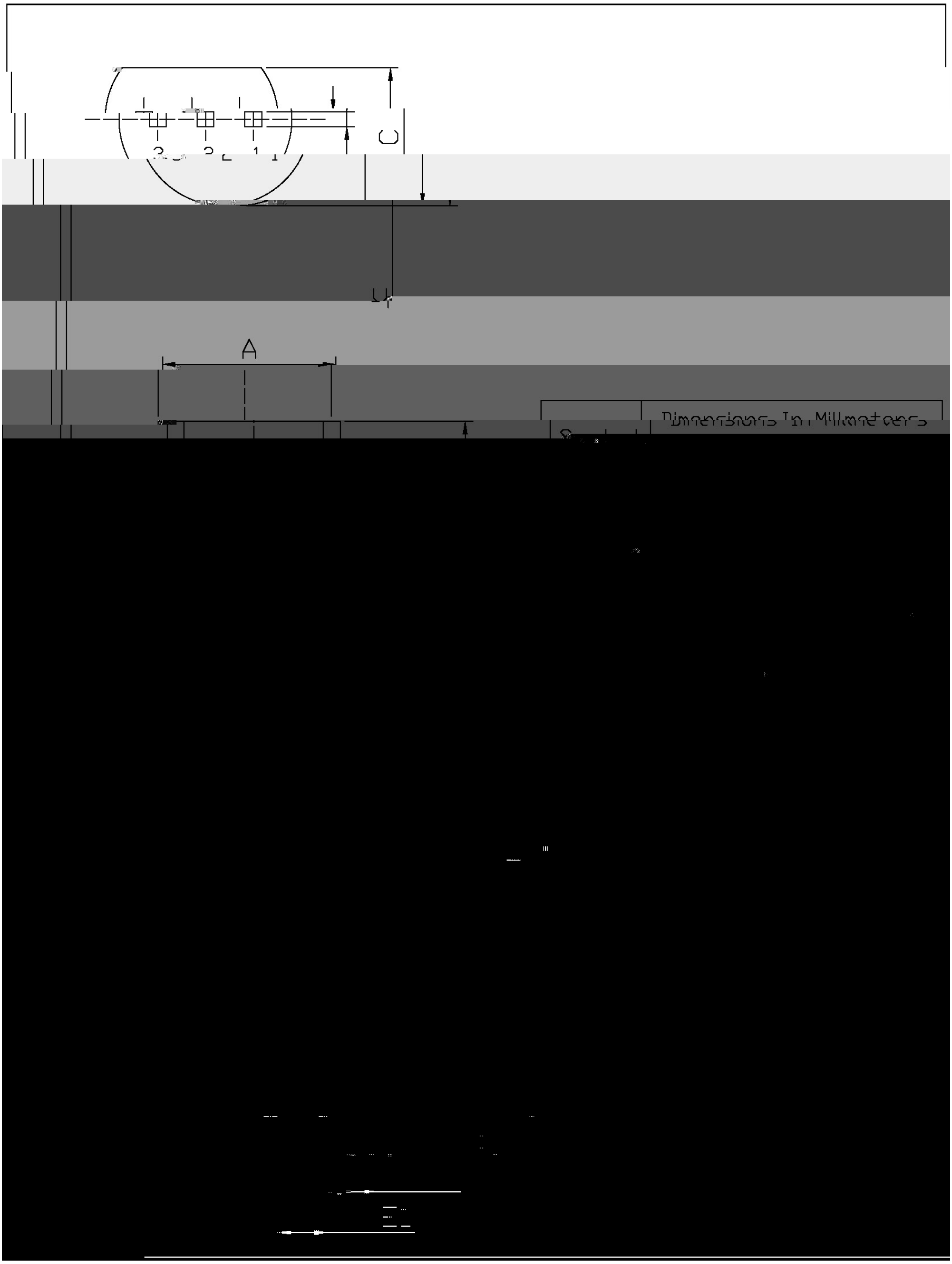
| $h_{FE}$ Classifications Symbol | Y | GR | BL |
|---|---|---|---|
| $h_{FE}$ Range | 120~240 | 200~400 | 350~700 |

| 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 | $I_C$ | 100 | 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 | $V_{CBO}$ | $I_C$=1.0mA $I_B$=0 | 120 | | | V |
| Collector to Emitter Breakdown Voltage | $V_{CEO}$ | $I_C$=100 A $I_E$=0 | 120 | | | V |
| Emitter to Base Breakdown Voltage | $V_{EBO}$ | $I_E$=100 A $I_C$=0 | 5.0 | | | V |
| Collector Cut-Off Current | I | | | | | |

## / Package Dimensions

TO-92 Unit: mm



## ( ) / 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 | Units | | | | | Dimension | | (unit mm3) |
|---|---|---|---|---|---|---|---|---|
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