

## / Descriptions

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

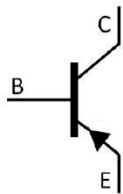
## / Features

， 2SC1788  
low  $V_{CE(sat)}$ , complementary pair with 2SC1788.

## / Applications

Audio frequency output amplifier.

## / Equivalent Circuit



## / Pinning



PIN1   Base          PIN 2   Collector          PIN 3   Emitter

## / hFE Classifications & Marking

| h <sub>FE</sub> Classifications<br>Symbol | Q      | R       | S       |
|-------------------------------------------|--------|---------|---------|
| h <sub>FE</sub> Range                     | 90~155 | 130~220 | 180~350 |

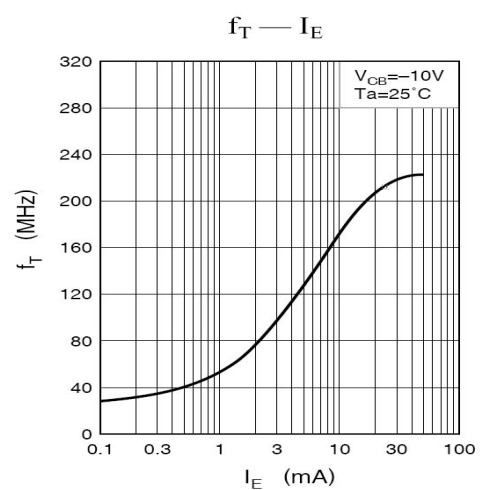
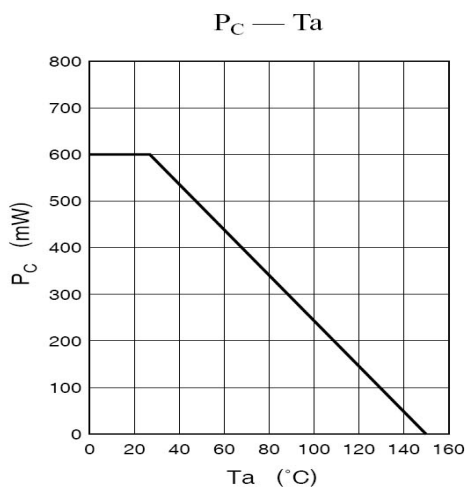
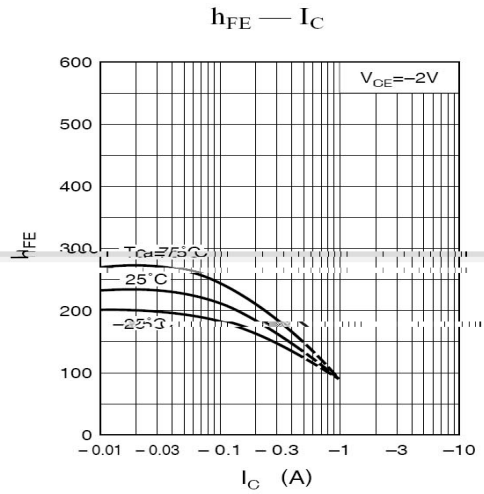
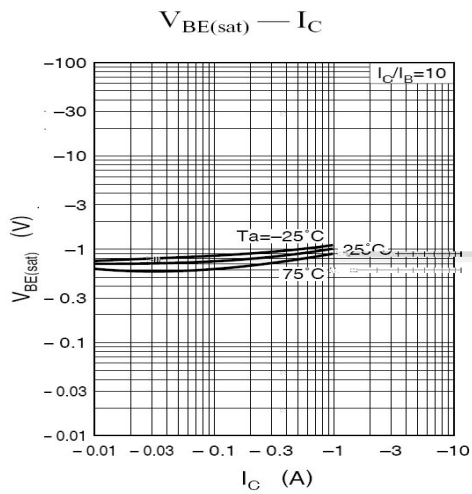
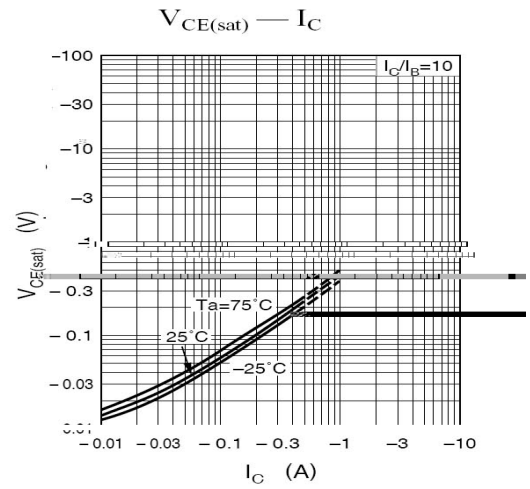
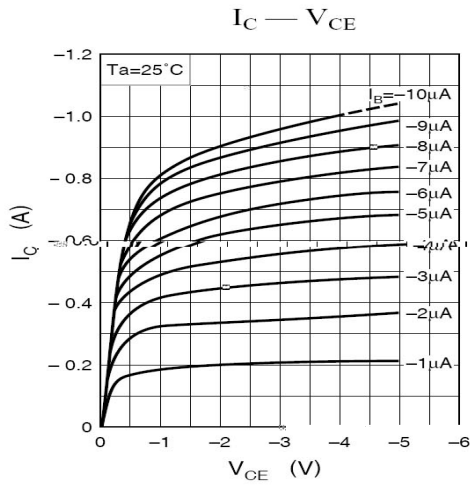
| Parameter                             | Symbol    | Rating  | Unit |
|---------------------------------------|-----------|---------|------|
| Collector to Base Voltage             | $V_{CBO}$ | -25     | V    |
| Collector to Emitter Voltage          | $V_{CEO}$ | -20     | V    |
| Emitter to Base Voltage               | $V_{EBO}$ | -7.0    | V    |
| Collector Current – Continuous(Pulse) | $I_{CP}$  | -1.0    | A    |
| Collector Current - Continuous        | $I_C$     | -0.5    | A    |
| 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    | $V_{CBO}$ | $I_C = -10\text{ A}$ $I_E = 0$  | -25  |     |     | V    |
| Collector to Emitter Breakdown Voltage | $V_{CEO}$ | $I_C = -1.0\text{mA}$ $I_B = 0$ | -20  |     |     | V    |
| Emitter to Base Breakdown Voltage      | $V_{EBO}$ | $I_C = -10\text{ A}$ $I_C = 0$  | -7.0 |     |     | V    |

Collector Cut-Off Current

Emittor Cf Curr1( 5T373.28 0.4 36S )TJET5 T5.9f530.0603 Tm-0.0003 Tc0 Twc(E8472.3e )Tj10.5 0 0 10.66.34.942

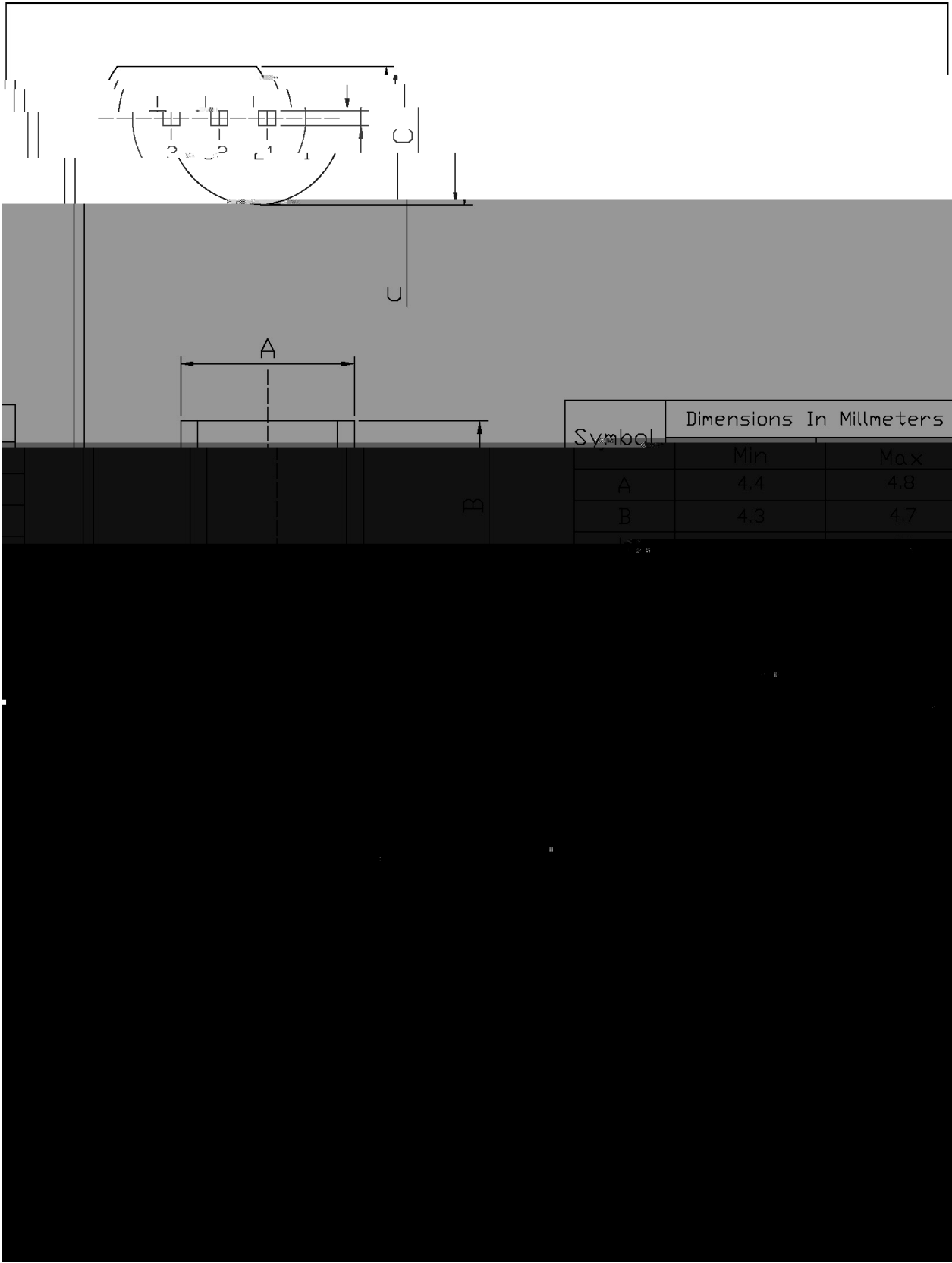
**/ Electrical Characteristic Curve**



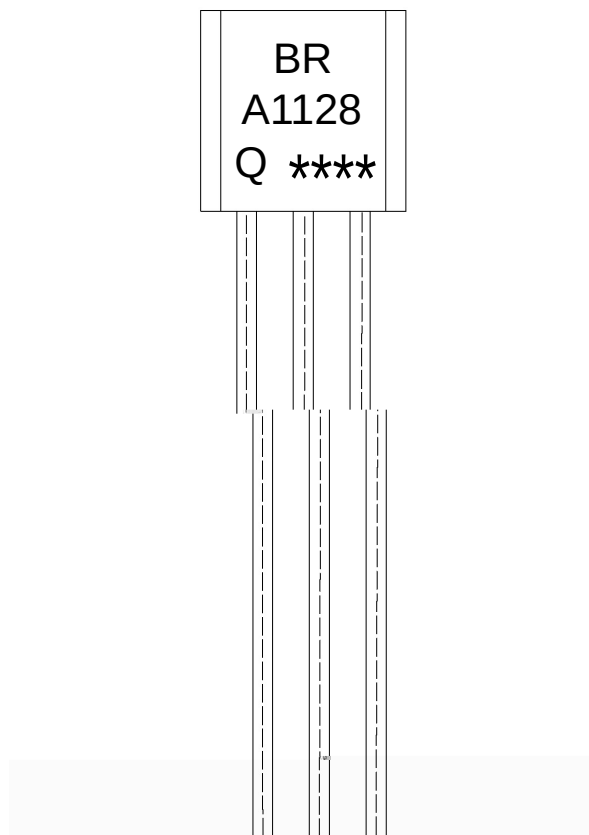
/ Package Dimensions

TO-92

Unit: mm



/ Marking Instructions



BR:

A1128

Q:  $h_{FE}$

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Note:

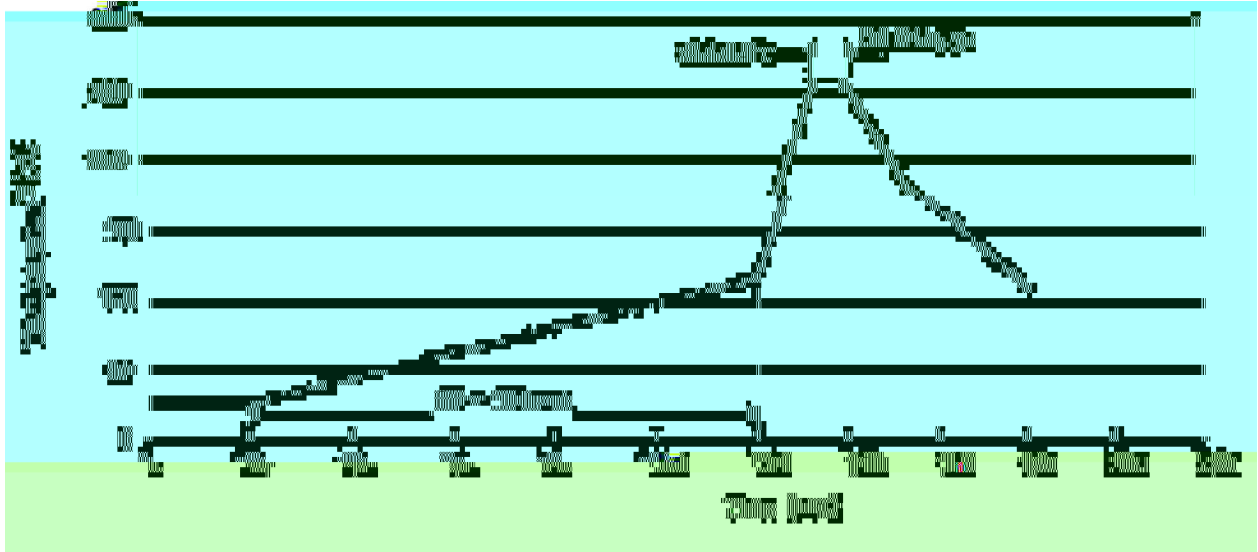
BR: Company Code.

A1128: Product Type.

Q:  $h_{FE}$  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 | Units          |                     |                      |                            |                      | Dimension (unit mm3) |             |             |
|--------------|----------------|---------------------|----------------------|----------------------------|----------------------|----------------------|-------------|-------------|
|              | Units/Bag<br>/ | Bags/Inner Box<br>/ | Units/Inner Box<br>/ | Inner Boxes/Outer Box<br>/ | Units/Outer Box<br>/ | Bag                  | Inner Box   | Outer Box   |
| TO-92        | 1,000          | 10                  | 10,000               | 5                          | 50,000               | 135×190              | 237×172×102 | 560×245×195 |
|              | 1,000          | 10                  | 10,000               | 10                         | 100,000              | 135×190              | 237×172×102 | 560×245×375 |

/ AMMO

| Package Type | Units           |                     |                     |                            |                      | Dimension (unit mm3) |                            |
|--------------|-----------------|---------------------|---------------------|----------------------------|----------------------|----------------------|----------------------------|
|              | Units/tape<br>/ | Tape/Inner Box<br>/ | Rows/Inner Box<br>/ | Inner Boxes/Outer Box<br>/ | Units/Outer Box<br>/ | Inner Box            | Outer Box                  |
| TO-92        | 3,000           | 1                   | 120                 | 10                         | 30,000               | 328×230×42           | 480×346×235<br>547×407×268 |

/ Notices