

## / Descriptions

WR0<50 P    M M E QSQ    æ M y s ll 1    Silicon NPN transistor in a TO-92LM Plastic Package.

## / Features

$$M \otimes_{\mathcal{A}} I = J \otimes_{\mathcal{B}} M$$

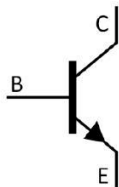
High breakdown voltage, low output capacitance, high transition frequency.

## / Applications

[illegible]

B/W TV video output, high voltage switching application.

### / Equivalent Circuit



## / Pinning



PIN1  $\chi$  Base      PIN 2  $\chi$  Collector      PIN 3  $\chi$  Emitter

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

| $h_{FE}$ Classifications<br>Symbol | O      | Y       |
|------------------------------------|--------|---------|
| $h_{FE}$ Range                     | 70~140 | 120~240 |

| Parameter                      | Symbol    | Rating  | Unit |
|--------------------------------|-----------|---------|------|
| Collector to Base Voltage      | $V_{CBO}$ | 200     | V    |
| Collector to Emitter Voltage   | $V_{CEO}$ | 150     | V    |
| Emitter to Base Voltage        | $V_{EBO}$ | 5.0     | V    |
| Collector Current - Continuous | $I_C$     | 50      | mA   |
| Emitter Current - Continuous   | $I_E$     | -50     | mA   |
| Collector Power Dissipation    | $P_C$     | 1.0     | W    |
| Junction Temperature           | $T_j$     | 150     |      |
| Storage Temperature Range      | $T_{stg}$ | -55 150 |      |

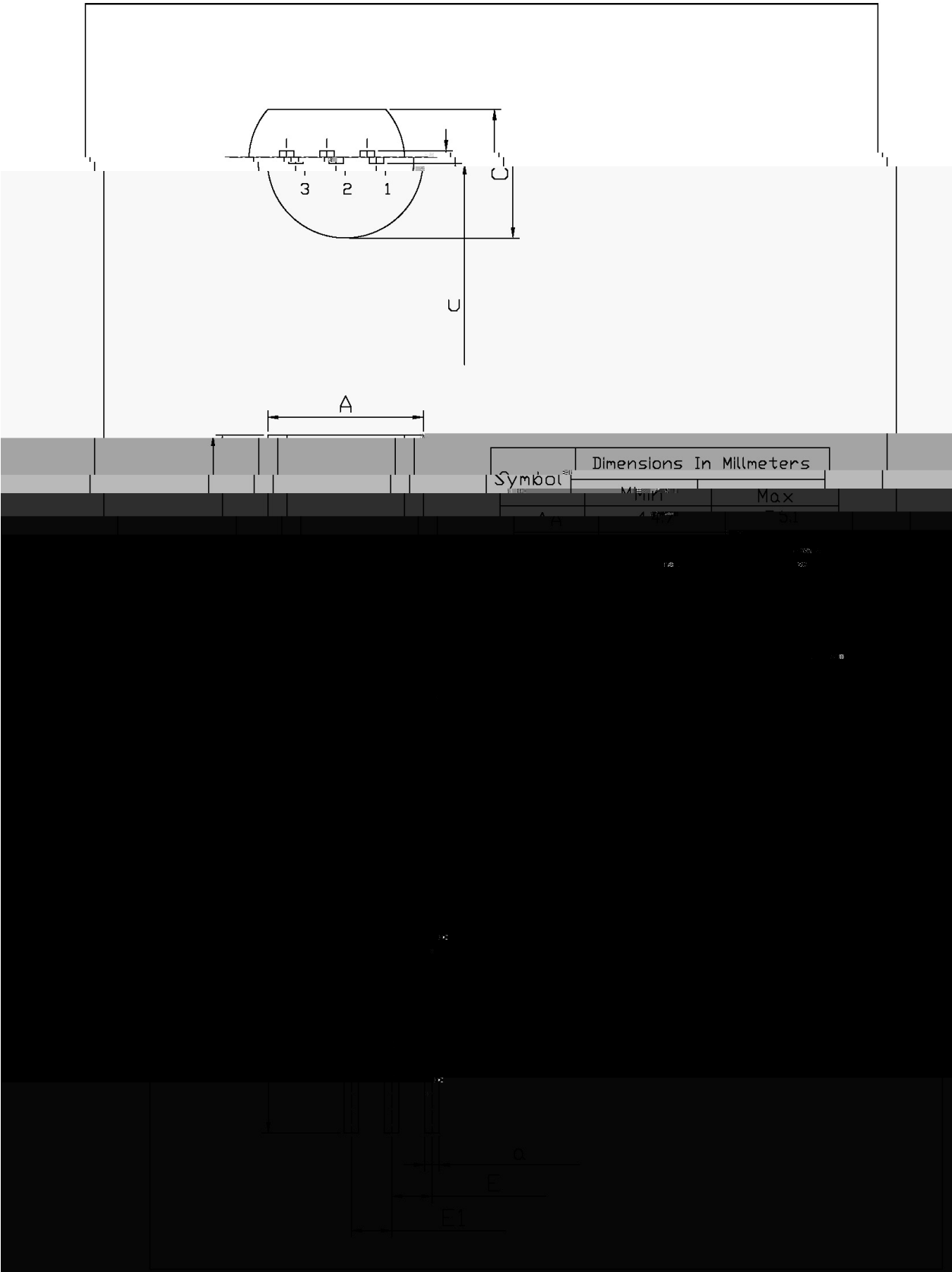
| Parameter                               | Symbol        | Test Conditions          | Min | Typ | Max | Unit |
|-----------------------------------------|---------------|--------------------------|-----|-----|-----|------|
| Collector Cut-Off Current               | $I_{CBO}$     | $V_{CB}=200V$ $I_E=0$    |     |     | 0.1 | A    |
| Emitter Cut-Off Current                 | $I_{EBO}$     | $V_{EB}=5.0V$ $I_C=0$    |     |     | 0.1 | A    |
| DC Current Gain                         | $h_{FE}$      | $V_{CE}=5.0V$ $I_C=10mA$ | 70  |     | 240 |      |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=10mA$ $I_B=1.0mA$   |     |     | 0.5 | V    |
| Base to Emitter Voltage                 | $V_{BE(sat)}$ | $I_C=10mA$ $I_B=1.0mA$   |     |     | 1.0 | V    |
| Transition Frequency                    | $f_T$         | $V_{CE}=30V$ $I_C=10mA$  |     | 120 |     | MHz  |
| Collector output capacitance            | $C_{ob}$      | V                        |     |     |     |      |



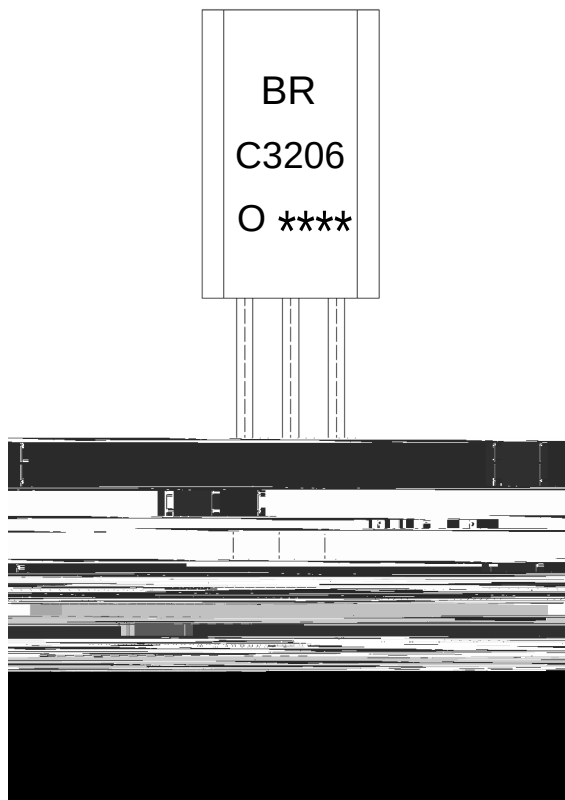
/ Package Dimensions

T0-92LM

Unit: mm



/ Marking Instructions



б " X

EU: Խ Յ Մ Ո

F6539: Խ Յ Ն Ո

R: Խ k<sub>1H</sub> 6 Ո

---- X Խ Ի Բ ը Ն Ո Ի Զ Ի Բ ը Ն Ս Ր

Note:

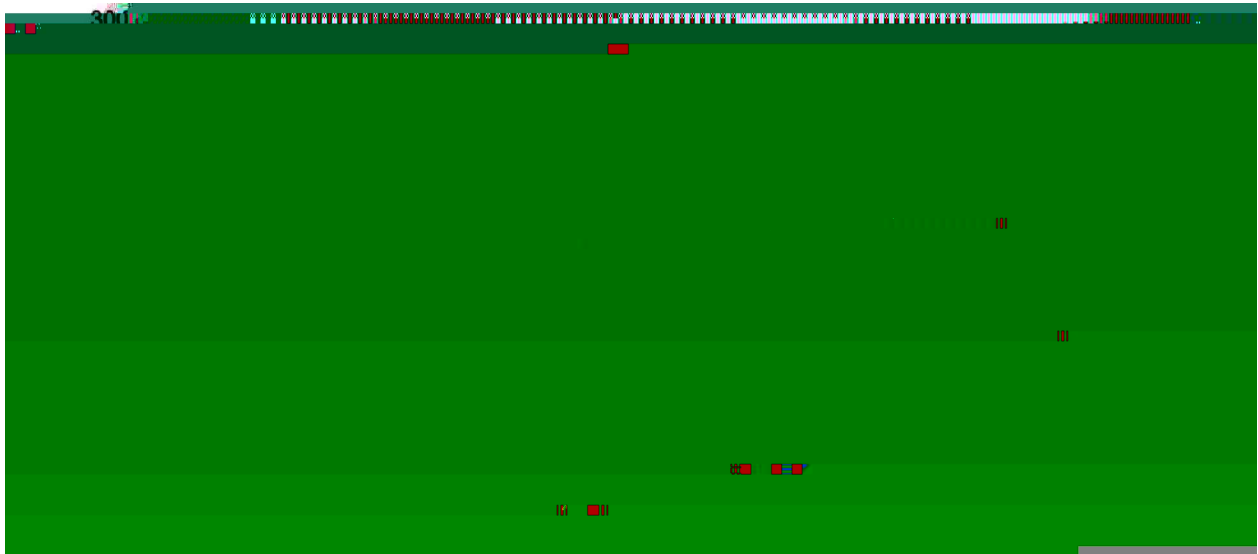
BR: Company Code.

C3206: Product Type.

O: h<sub>FE</sub> Classifications Symbol

\*\*\*\*: Lot No. Code, code change with Lot No.

( ) / Temperature Profile for Dip Soldering(Pb-Free)



б " X

1. 1. Preheating: 25~150 °C, Time: 60~90sec;
2. 2. Peak Temp.: 255 °C, Duration: 5~10sec;
3. 3. Cooling Speed: 2~10 °C/sec.

Note:

1. Preheating: 25~150 °C, Time: 60~90sec.
2. Peak Temp.: 255 °C, Duration: 5~10sec.
3. Cooling Speed: 2~10 °C/sec.

/ Resistance to Soldering Heat Test Conditions

□ °C 270 °C ± 5 °C      °C 10 °C ± 1 sec.      Temp.: 270 °C ± 5 °C      Time: 10 °C ± 1 sec

/ Packaging SPEC.

“Q” T Y E / BULK

| Package Type | Units | Dimension | (unit mm3) 10 |
|--------------|-------|-----------|---------------|
|--------------|-------|-----------|---------------|