## / Descriptions

TR0555 QSQ Silicon NPN transistor in a TO-252 Plastic Package.

## / Features

$V_{FH+vaw,}$ /$h_{IH}$

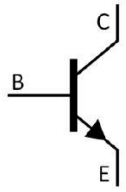
Low saturation voltage,excellent $h_{FE}$ linearity and high $h_{FE}$.

## / Applications

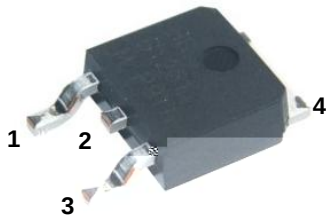
6 ב / /

Output stage of 3 watts audio amplifier, voltage regulator, DC-DC converter and relay driver.

## / Equivalent Circuit




## / Pinning




PIN1 Base PIN 2,4 Collector PIN 3 Emitter

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

| $h_{FE}$ Classifications Symbol | R | Q | P | E |
|---|---|---|---|---|
| $h_{FE}$ Range | 60 120 | 100 200 | 160 320 | 200 400 |

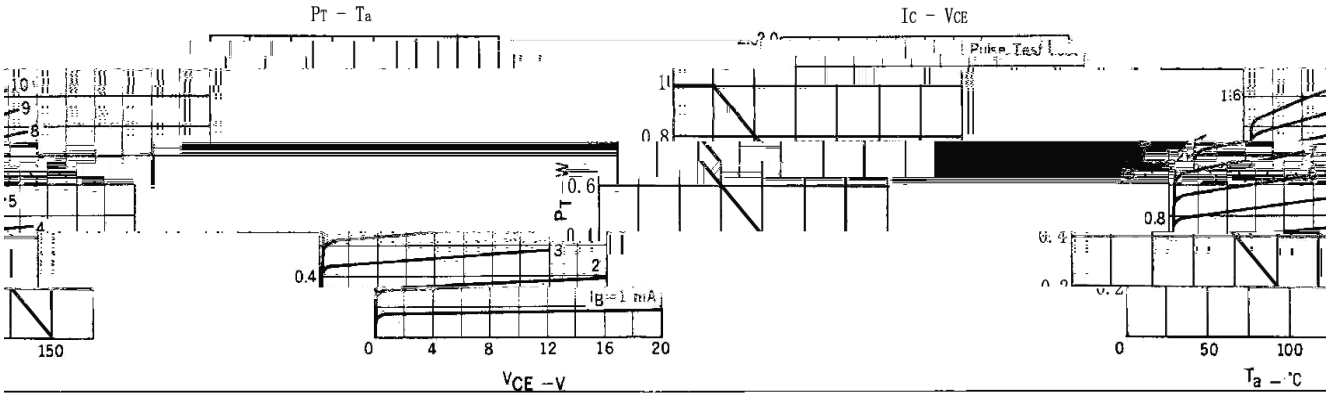
## / Absolute Maximum Ratings(Ta=25 )

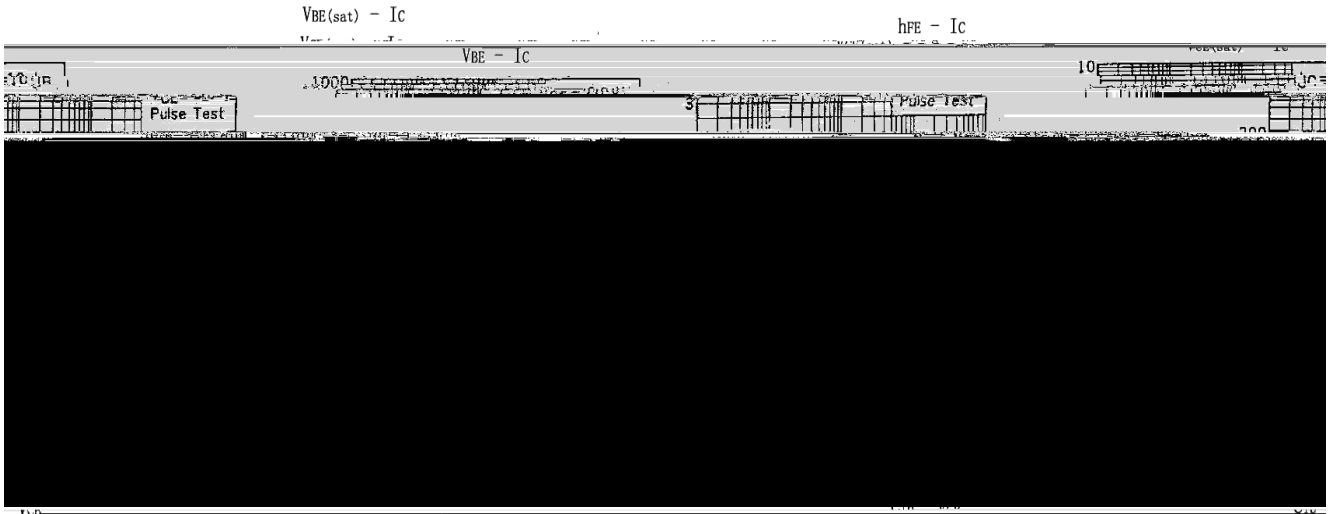
| Parameter | N Symbol | Rating | Unit |
|---|---|---|---|
| Collector to Base Voltage | $V_{CBO}$ | 40 | V |
| Collector to Emitter Voltage | $V_{CEO}$ | 30 | V |
| Emitter to Base Voltage | $V_{EBO}$ | 5.0 | V |
| Collector Current - Continuous | $I_C$ | 3.0 | A |
| Collector Power Dissipation | $P_C$ | 1.0 | W |
| | $P_{C(Tc=25\ )}$ | 10 | W |
| Junction Temperature | $T_j$ | 150 | |
| Storage Temperature Range | $T_{stg}$ | -55 150 | |

## / Electrical Characteristics(Ta=25 )

| Parameter | N Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Collector Cut-Of I | CBO | $V_{CB}$=30V $I_E$=0 | | | 1.0 | μA |
| | EBO | EB C | | | | |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE}$=2.0V $I_C$=1.0A | 60 | 160 | 400 | |
| | $h_{FE(2)}$ | $V_{CE}$=2.0V $I_C$=20mA | 30 | 150 | | |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C$=2.0A $I_B$=0.2A | | 0.3 | 0.5 | V |
| Base to Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C$=2.0A $I_B$=0.2A | | 1.0 | 2.0 | V |
| Transition Frequency | $f_T$ | $V_{CE}$=5.0V $I_C$=0.1A | | 90 | | MHz |
| Collector output capacitance | $C_{ob}$ | $V_{CB}$=10V $I_E$=0 f=1.0MHz | | 45 | | pF |

## / Electrical Characteristic Curve



## / Package Dimensions

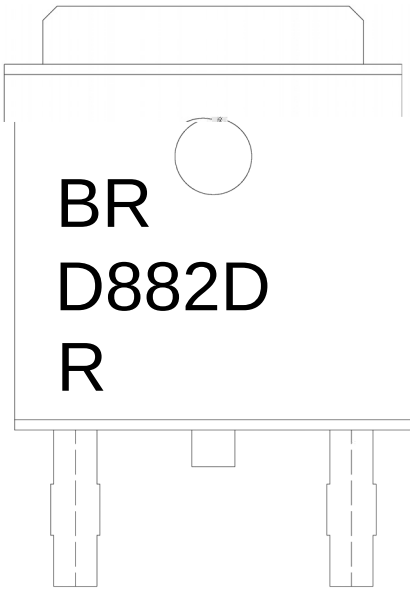



| Symbol | Min | Max | Symbol | Min | Max |
|---|---|---|---|---|---|
| A | 2.20 | 2.40 | E | 5.35 | [illegible] |
| D | 6.45 | 6.75 | L3 | [illegible] | [illegible] |
| D1 | 5.10 | 5.50 | K | [illegible] | [illegible] |

| | | |
|---|---|---|
| [illegible] | [illegible] | 1.75 |
| [illegible] | [illegible] | 0.90 |
| [illegible] | 0.00 | 0.10 |

TO-252

## / Marking Instructions




ER и

G885G N

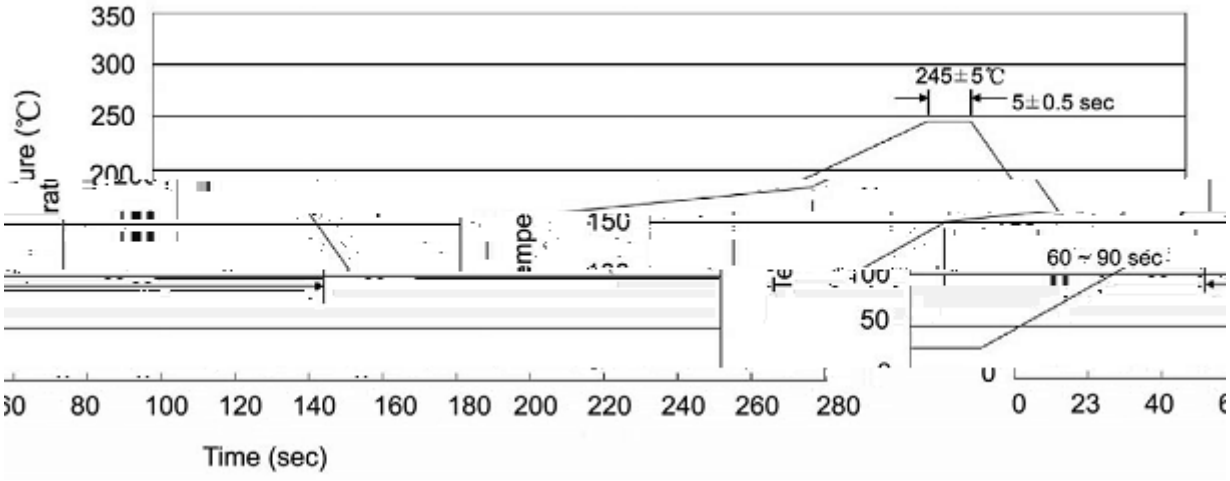
R: $h_{IH}$

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Note:

| | |
|---|---|
| BR: | Company Code |
| D882D: | Product Type. |
| R: | $h_{FE}$ Classifications Symbol |
| ****: | Lot No. Code, code change with Lot No. |

## ( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)




Note:

1 25 150 60 90sec;

2 245±5 5±0.5sec;

3 2 10 /sec.

1.Preheating:25~150 , Time:60~90sec.

2.Peak Temp.:245±5 , Duration:5±0.5sec.

3.