## / Descriptions

WR0<5 ĮMĮ Ł QSQ ÆḾ ч s ‖ ㄱ Silicon NPN transistor in a TO-92 Plastic Package.

## / Features

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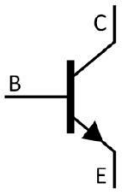
High voltage low saturation, low collector output capacitance, complementary pair with MPSA92G.HF Product.

## / Applications

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High voltage control circuit.

## / Equivalent Circuit




## / Pinning




PIN1 χ Collector PIN 2 χ Base PIN 3 χ Emitter

## / hFE Classifications & Marking

ð м ㄱ ب ˝ See Marking Instructions.

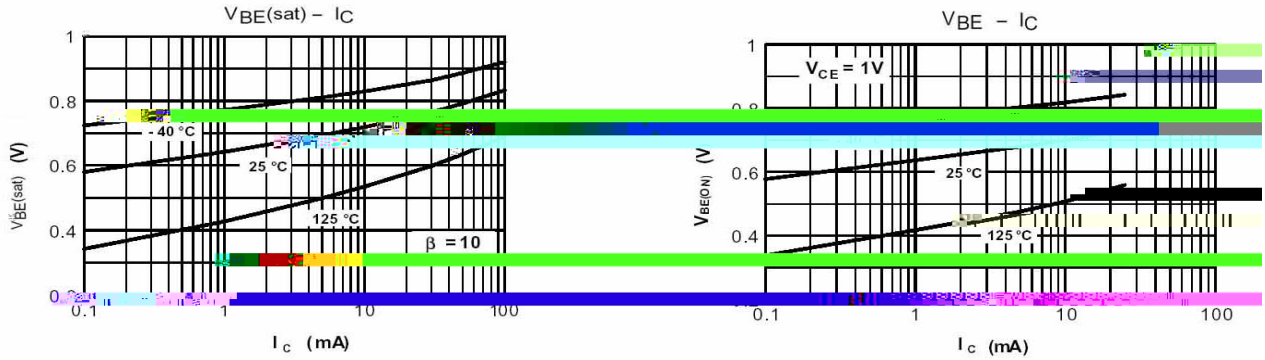
## / Absolute Maximum Ratings(Ta=25 )

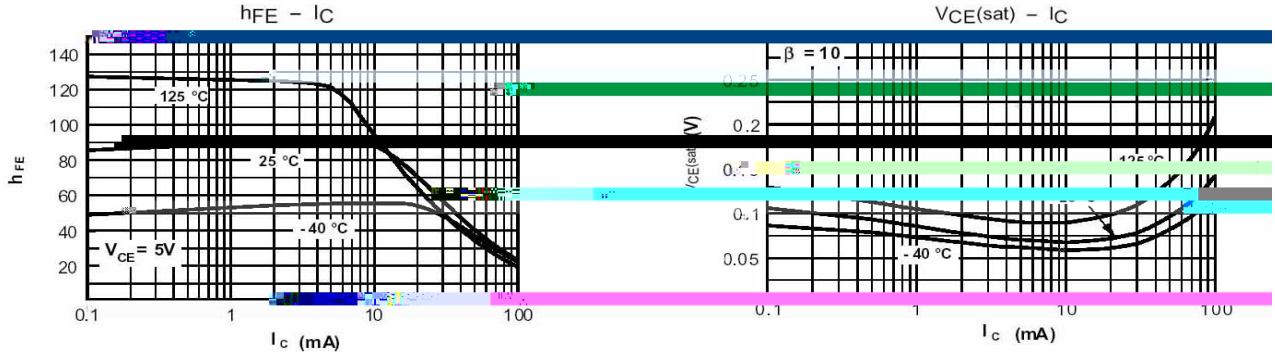
| v Ѽ<br>Parameter | ч N<br>Symbol | Ѽ Ё<br>Rating | D Ц<br>Unit |
|---|---|---|---|
| Collector to Base Voltage | $V_{CBO}$ | 300 | V |
| Collector to Emitter Voltage | $V_{CEO}$ | 300 | V |
| Emitter to Base Voltage | $V_{EBO}$ | 6.0 | V |
| Collector Current - Continuous | $I_C$ | 500 | mA |
| Collector Power Dissipation | $P_C$ | 625 | mW |
| Collector Power Dissipation | $P_C$($T_c$=25 ł ) | 1.5 | W |
| Junction Temperature | $T_j$ | 150 | |
| Storage Temperature Range | $T_{stg}$ | -55 150 | |

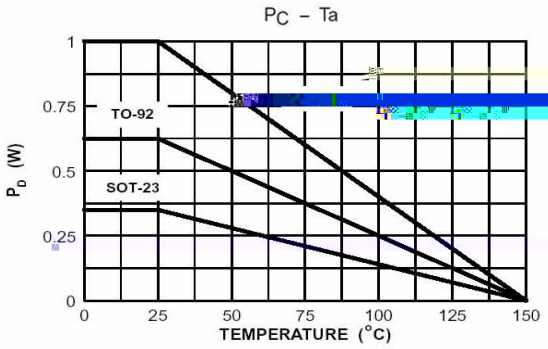
## / Electrical Characteristics(Ta=25 )

| v Ѽ<br>Parameter | ч N<br>Symbol | Ш :ĺ Ţ<br>Test Conditions | ѽ ņ Ё<br>Min | Ɛ ȝ Ё<br>Typ | ѽ ƶ Ё<br>Max | D Ц<br>Unit |
|---|---|---|---|---|---|---|
| Collector to Base Breakdown Voltage | $V_{CBO}$ | $I_C$=100 A $I_E$=0 | 300 | | | V |
| Collector to Emitter Breakdown Voltage | $V_{CEO}$ | $I_C$=1.0mA $I_B$=0 | 300 | | | V |
| Emitter to Base Breakdown Voltage | $V_{EBO}$ | $I_E$=100 A $I_C$=0 | 6.0 | | | V |
| Collector Cut-Off Current | $I_{CBO}$ | $V_{CB}$=200V $I_E$=0 | | | 0.1 | A |
| Emitter Cut-Off Current | $I_{EBO}$ | $V_{EB}$=6.0V $I_C$=0 | | | 0.1 | A |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE}$=10V $I_C$=10mA | 40 | | | |
| | $h_{FE(2)}$ | $V_{CE}$=10V $I_C$=30mA | 40 | | | |
| | $h_{FE(3)}$ | $V_{CE}$=10V $I_C$=1.0mA | 25 | | | |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C$=20mA $I_B$=2.0mA | | | 0.5 | V |
| Base to Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C$=20mA $I_B$=2.0mA | | | 0.9 | V |
| Transition Frequency | $f_T$ | $V_{CE}$=20V $I_C$=10mA f=100MHz | 50 | | | MHz |
| Collector Output Capacitance | $C_{ob}$ | $V_{CB}$=20V $I_E$=0 f=1.0MHz | | | 3.0 | pF |

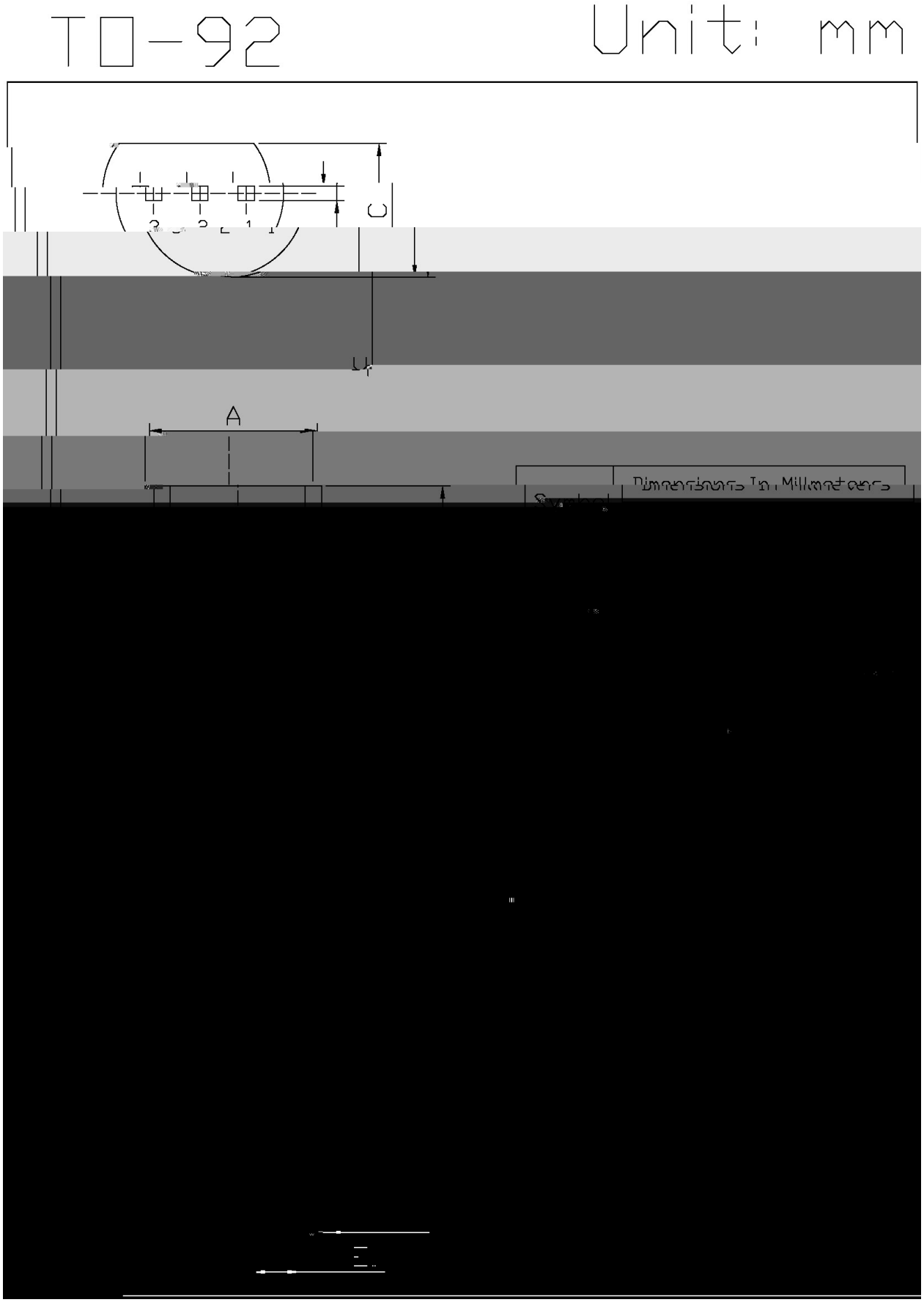
## / Electrical Characteristic Curve



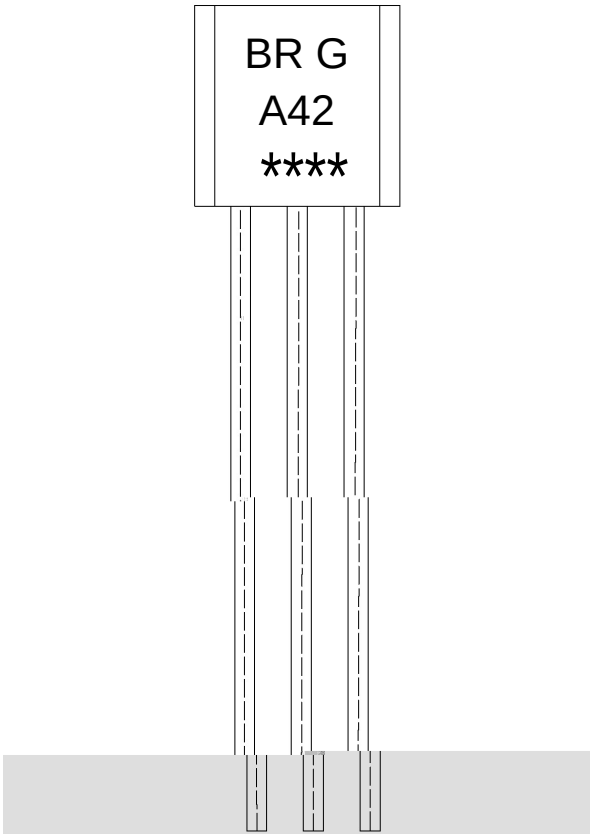



## / Package Dimensions



## / Marking Instructions

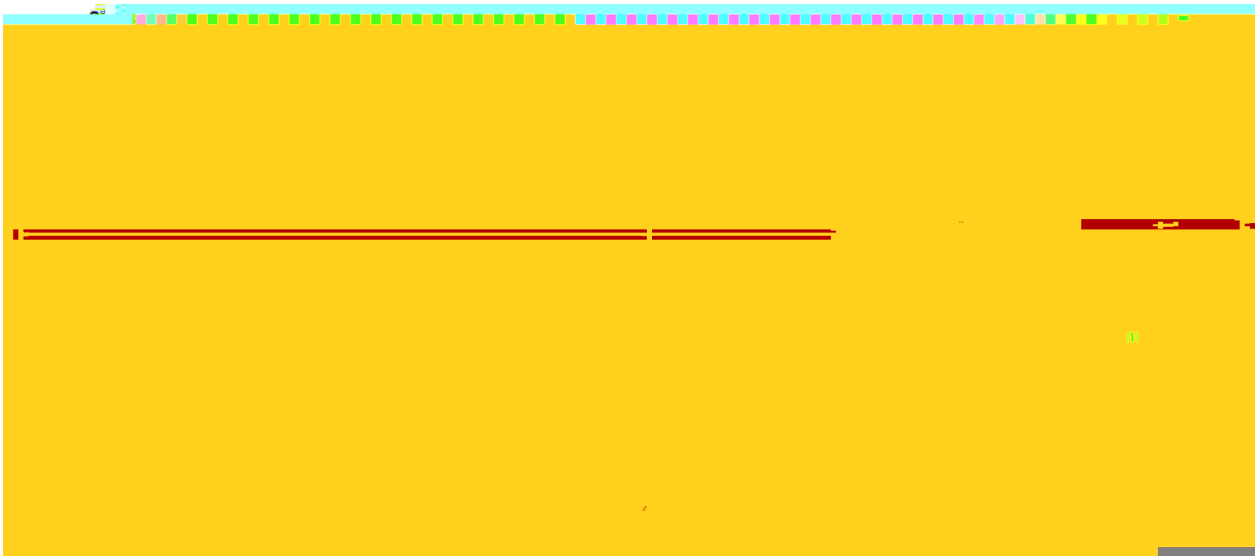



| | |
|---|---|
| ب ˝ χ | |
| EU= | ﻫ ﺀ ﻧ ﮣ |
| D75 χ | ﻫ ﺯ ﻥ ﮣ |
| J= | ﻫ ﻍ ﻓ ﺑ ﮣ |
| ---- χ | ﻫ ﺍ ﻓ ﻕ ﻥ ﮣ ﺍ ﻩ ﺍ ﻓ ﻕ ﻥ ﻳ ﻗ |

Note:

| | |
|---|---|
| BR: | Company Code. |
| A42: | Product Type. |
| G: | Halogen Free Product |
| ****: | Lot No. Code,code change with Lot No. |

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



ب ˝ χ

1 Ĺ ♬ □ ỷ 25 Ḱ 150 ł ı `H ڑ 60 Ḱ 90sec;

2 Š Ө □ ỷ 255 ° 5 ł ı `H ڑ `Y ﾊ ㎛ 5 ° 0.5sec;

3 ì ˙ ｲ ˛ ɔ ෯ ỷ ㎛ 2 Ḱ 10 ł /sec.

Note:

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

2.Peak Temp.:255 ° 5 ł , Duration:5 ° 0.5sec.

3. Cooling Speed: 2~10 ł /sec.

## / Resistance to Soldering Heat Test Conditions

| | | | |
|---|---|---|---|
| □ ỷ χ 270 ° 5 ł | `H ڑ χ 10 ° 1 sec. | Temp:270±5 | Time:10±1 sec |

## / Packaging SPEC.

¨Ω ţ ｲ Ł / BULK

| Package Type 封装形式 | Units 包装数量 | Dimension 包装尺寸 (unit: mm3) |
|---|---|---|