

5 é / Descriptions

9 5: .> // x 4 6 4 ! - } â 'ož Silicon NPN transistor in a SOT-23 Plastic Package.

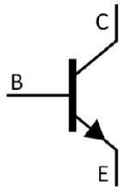
α a / Features

z v k z 9 k ... ` ' + ) 7 ö Ö ä U ´ Å } L k —) í D } ož  
Low current, Low voltage, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

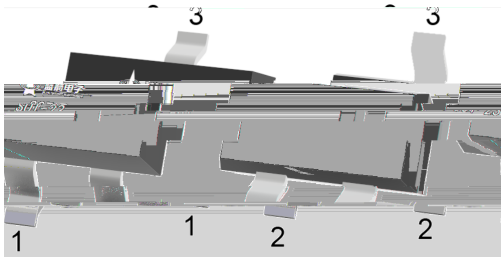
Đ ÷ / Applications

9 ¯ \* y Ý C • ¼ k á V ñ • } Lož  
General purpose amplifier and switching, Meet the stringent requirements of automotive applications.

Ã w ] Ô . / Equivalent Circuit



• Ů - æ / Pinning



PIN 1 y Base      PIN 2 y Emitter      PIN 3 y Collector

Z Ü B , M V / hFE Classifications & Marking

|           |         |
|-----------|---------|
| hFE Range | 100 300 |
| Marking   | g Q1A   |

| @ f<br>Parameter             | ... Z<br>Symbol  | f ><br>Rating | % y<br>Unit |
|------------------------------|------------------|---------------|-------------|
| Collector to Base Voltage    | V <sub>CBO</sub> | 60            | V           |
| Collector to Emitter Voltage | V <sub>CEO</sub> | 40            | V           |
| Emitter to Base Voltage      | V <sub>EBO</sub> | 6.0           | V           |
| Collector Current            | I <sub>C</sub>   | 200           | mA          |
| Collector Power Dissipation  | P <sub>C</sub>   | 200           | mW          |
| Collector Power Dissipation  | *P <sub>C</sub>  | 350           | mW          |
| Junction Temperature         | T <sub>j</sub>   | 150           |             |
| Storage Temperature Range    | T <sub>stg</sub> | -55 150       |             |

“ ~ ~ S S —G— á \*When mounted on a 7×5×0.6mm ceramic board

| @ f<br>Parameter                       | ... Z<br>Symbol  | y i Ú ^<br>Test Conditions              | Â 4 ><br>Min | Á ° ><br>Typ | Â Ý ><br>Max | % y<br>Unit |
|----------------------------------------|------------------|-----------------------------------------|--------------|--------------|--------------|-------------|
| Collector to Base Breakdown Voltage    | V <sub>CBO</sub> | I <sub>C</sub> =10 A I <sub>E</sub> =0  | 60           |              |              | V           |
| Collector to Emitter Breakdown Voltage | V <sub>CEO</sub> | I <sub>C</sub> =1.0mA I <sub>B</sub> =0 | 40           |              |              | V           |

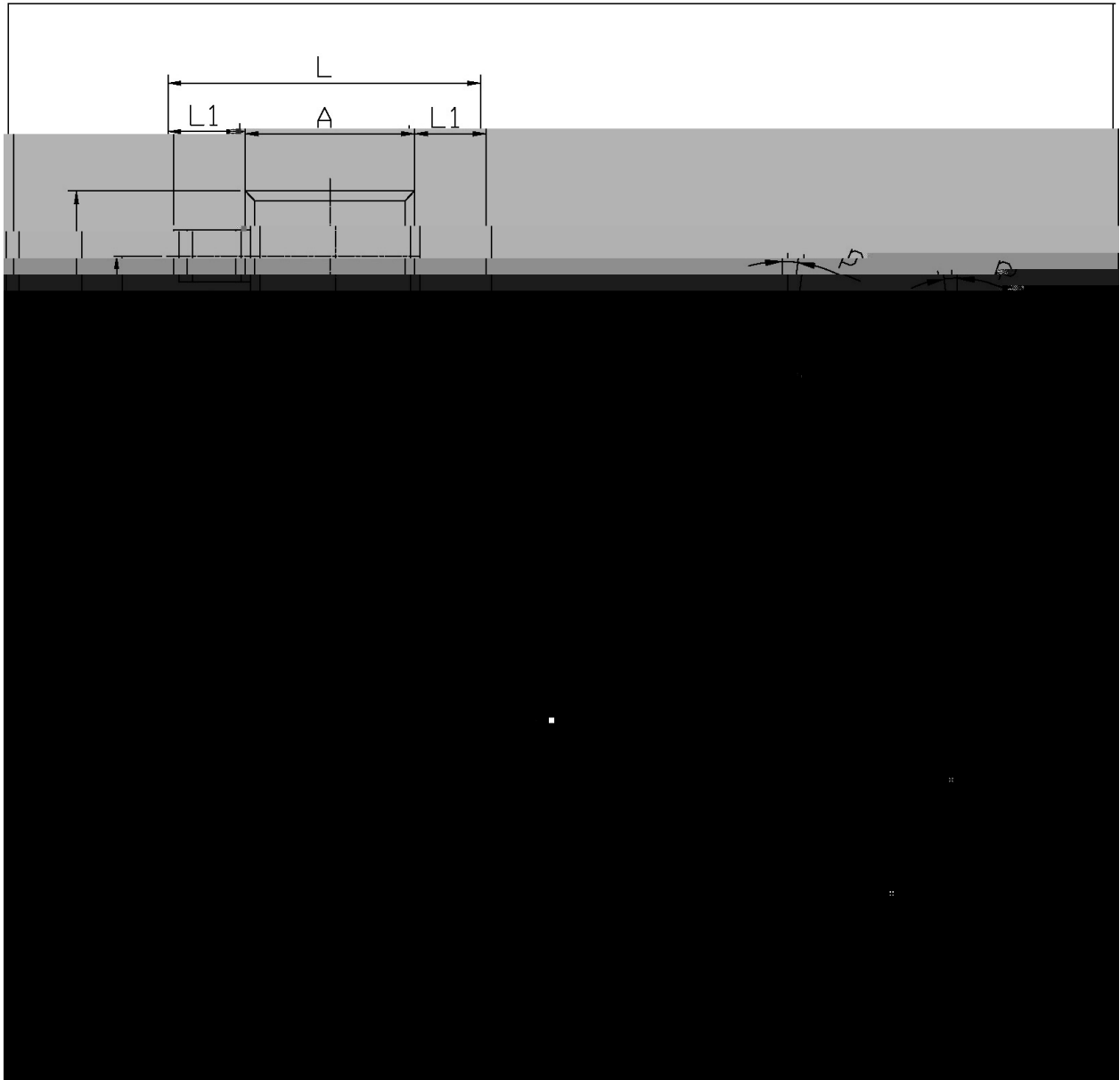
## 〇 ? d • Ž ¢ / Electrical Characteristic Curve



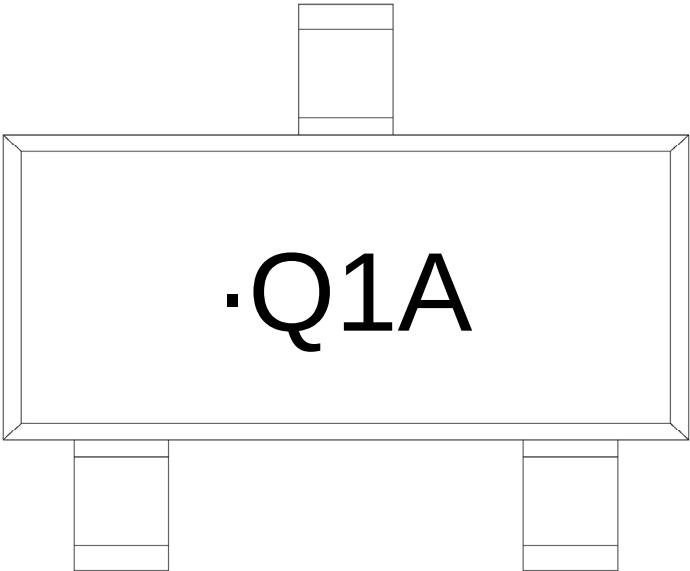
$\varnothing \square = ) \phi$  / Package Dimensions

SOT-23

单位: mm



, M y f / Marking Instructions



<sup>a</sup> ¢ y  
· y            ã ö œ  
Q y           V ñ —) í D } ö œ  
1A y           ° Z W A

Note:  
· y           Identify  
Q:           Automobile halogen-free product Code  
1A y        Product Type Code

# BRMMBT3904Q

Rev.B May.-2025



DATA SHEET

šWD t...•Žč (x/ ) / :KSVKXGZ[XK 6XULORK LUX /8 8KLRU] 9URJKXOTM 6

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|  |
|  |
|  |

a ç y

Note:

10• Ä ½ “† 150 ½200 - k ž • 60 ½120sec;

1.Preheating:150~200 - , Time:60~120sec.

20• Q > “† 255 r5 - k ž • 4 Ò 5 r0.5sec;

2.Peak Temp.:255 r5 - , Duration:5 r0.5sec.

30•D N ò i Ò 0 ,† 2 ½10 - /sec.

3. Cooling Speed: 2~10 - /sec.

## ÂD /Cã p ¯ »] / Resistance to Soldering Heat Test Conditions

“† y 260 r5 -

ž • y 10 r1 sec.

Temp.:260±5

Time:10±1 sec

## G P á / Packaging SPEC.

2 & x / REEL

| Package Type | Units ;>û !H | Dimension ;>û p . | (unit Åmm³) |
|--------------|--------------|-------------------|-------------|
| 7>û ~ E      |              |                   |             |