

Rev.E Mar.-2016

SOT-323      NPN      Silicon NPN transistor in a SOT-323 Plastic Package.

, , , MMBTA92W  
 High voltage, Low saturation voltage, low collector capacitance output, complementary pair with MMBTA92W.

High voltage control circuit.



PIN1   Emitter      PIN 2   Base      PIN 3   Collector

Rev.E Mar.-2016

| Parameter                      | Symbol    | Rating  | 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    | $P_C^*$   | 250     | mW   |
| Junction Temperature           | $T_j$     | 150     |      |
| Storage Temperature Range      | $T_{stg}$ | -55 150 |      |

 \*: 4.0\*4.0\*0.15mm<sup>3</sup> FR-4 PCB

 \*:Device mounted on FR-4 PCB 4.0\*4.0\*0.15mm<sup>3</sup>

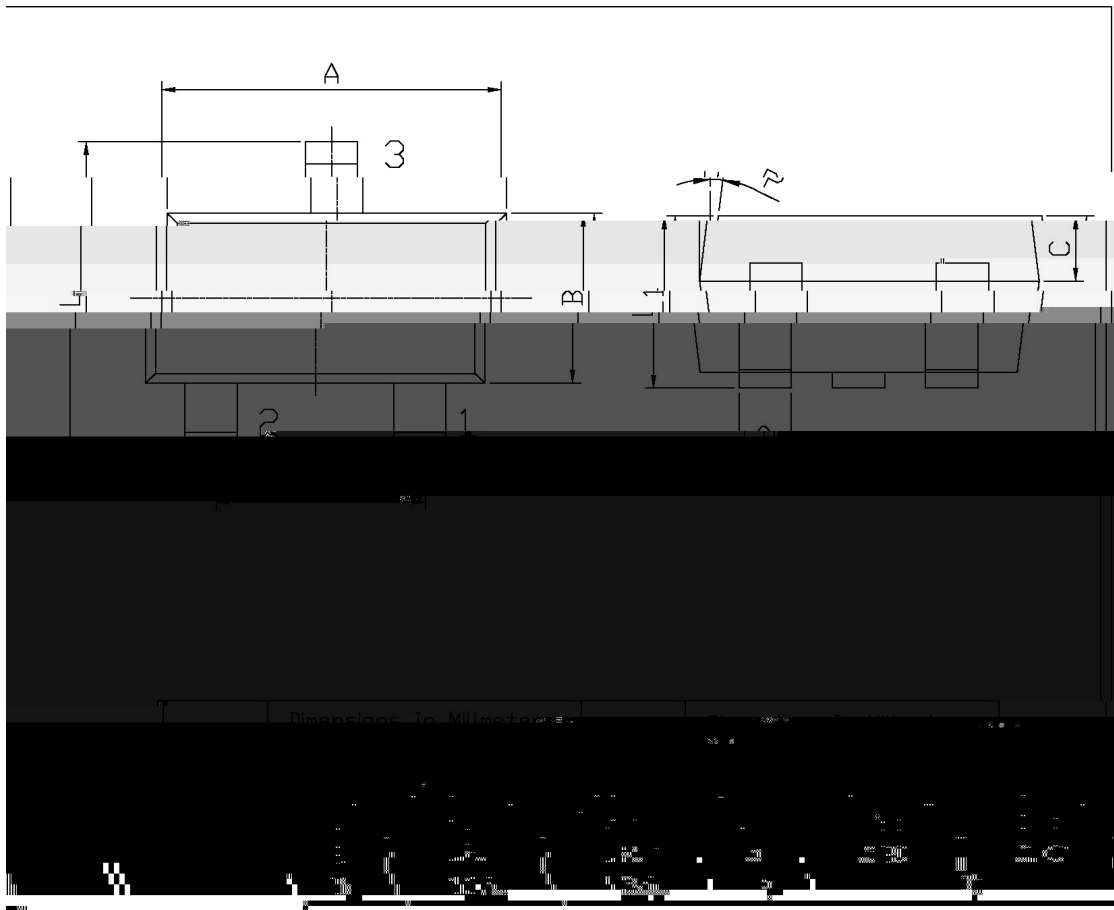
| Parameter                               | Symbol        | Test Conditions          | Min | Typ | Max | Unit    |
|-----------------------------------------|---------------|--------------------------|-----|-----|-----|---------|
| Collector to Base Breakdown Voltage     | $V_{CBO}$     | $I_C=100\mu A$ $I_E=0$   | 300 |     |     | V       |
| Collector to Emitter Breakdown Voltage  | $V_{CEO}$     | $I_C=1.0mA$ $I_B=0$      | 300 |     |     | V       |
| Emitter to Base Breakdown Voltage       | $V_{EBO}$     | $I_E=100\mu A$ $I_C=0$   | 6.0 |     |     | V       |
| Collector Cut-Off Current               | $I_{CBO}$     | $V_{CB}=200V$ $I_E=0$    |     |     | 0.1 | $\mu A$ |
| Emitter Base Cut-Off Current            | $I_{EBO}$     | $V_{BE}=6.0V$ $I_C=0$    |     |     | 0.1 | $\mu A$ |
| 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                    | $f_T$         | $I_C=10mA$               |     |     |     |         |

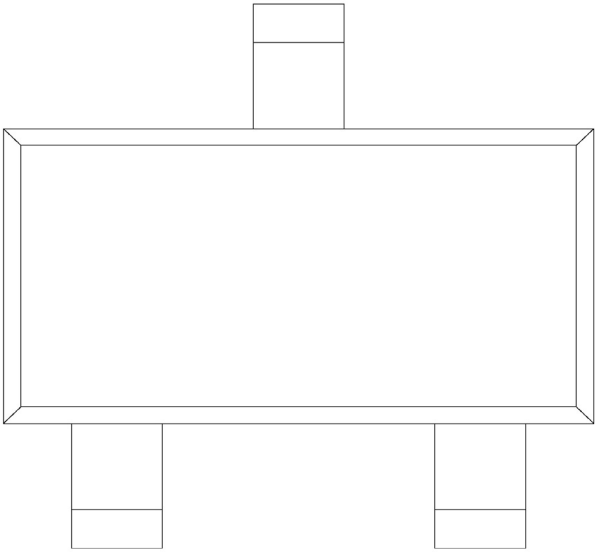
Rev.E Mar.-2016

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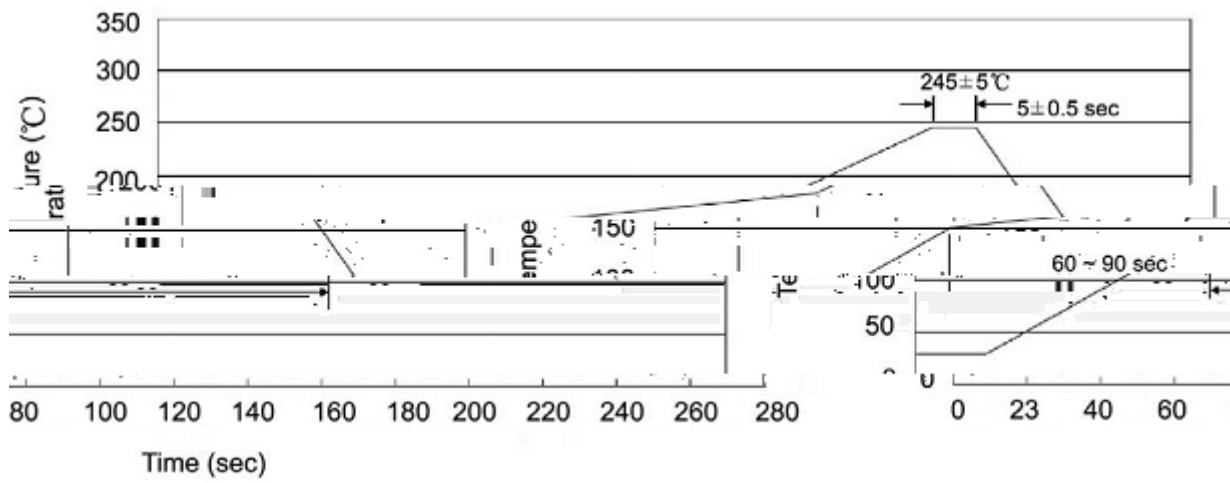
SOT-323

单位: mm





Rev.E Mar.-2016



Note:

- 1 25 150 60 90sec;
- 2

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