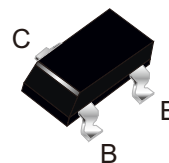


FEATURES

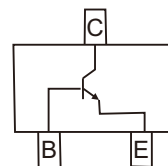
- Epoxy meets UL-94 V-0 flammability rating
- Complementary to MMBTA92
- Power Dissipation of 350mW
- High Stability and High Reliability

SOT-23



MECHANICAL DATA

- Case: SOT-23(TO-236)
- Terminals: Plated solderable per MIL-STD-750, method 2026
- Mounting Position: Any
- Marking: 1D



MAXIMUM RATINGS($T_A=25^{\circ}\text{C}$ Unless otherwise specified)

| Parameter | Symbol | Unit | Value |
|---|-----------------|-----------------------------|-------------|
| Collector-Emitter Voltage | V_{CEO} | V | 300 |
| Collector-Base Voltage | V_{CBO} | V | 300 |
| Emitter-Base Voltage | V_{EBO} | V | 5 |
| Collector Current, Continuous | I_C | mA | 300 |
| Collector Power Dissipation | P_D | mW | 350 |
| Operation Junction Temperature | T_J | $^{\circ}\text{C}$ | -55 to +150 |
| Storage Temperature | T_{STG} | $^{\circ}\text{C}$ | -55 to +150 |
| Thermal resistance From junction to ambient | $R_{\theta JA}$ | $^{\circ}\text{C}/\text{W}$ | 357 |

MMBTA42

ELECTRICAL CHARACTERISTICS(T_A=25°C Unless otherwise specified)

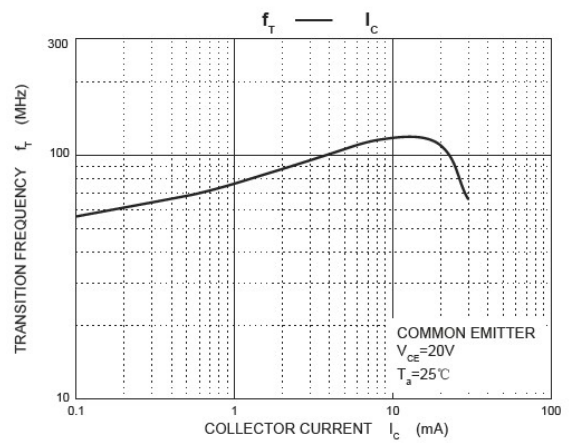
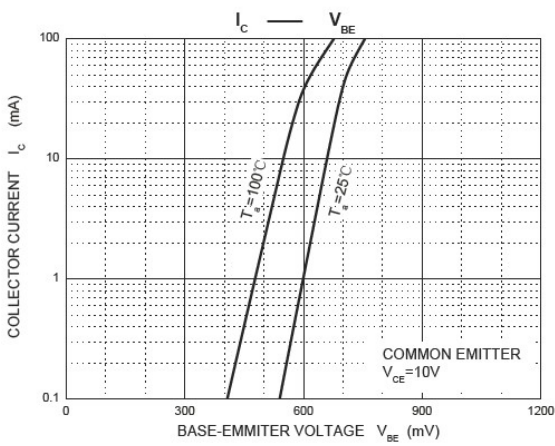
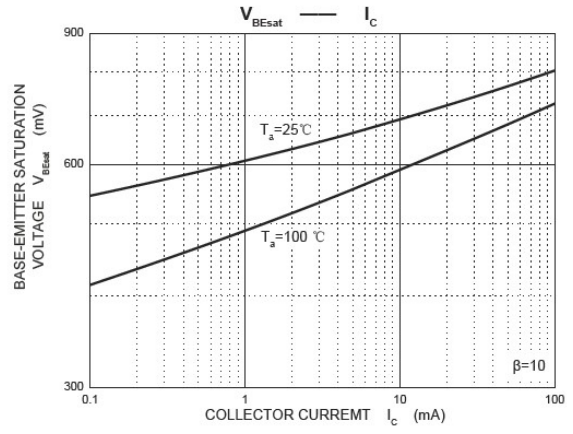
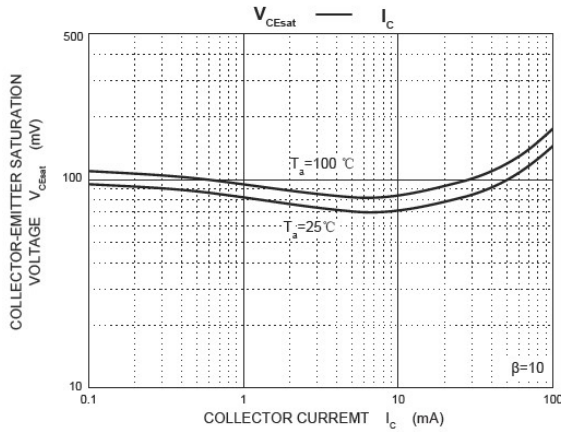
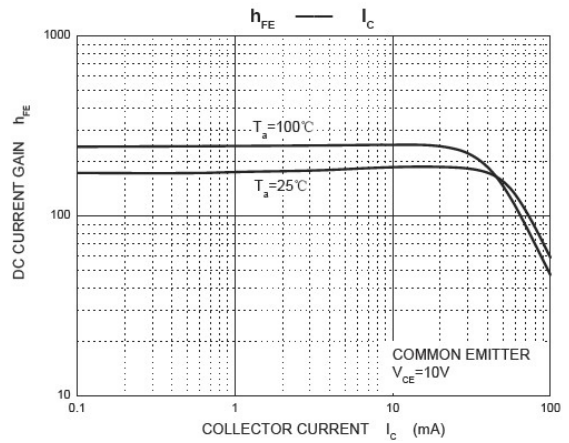
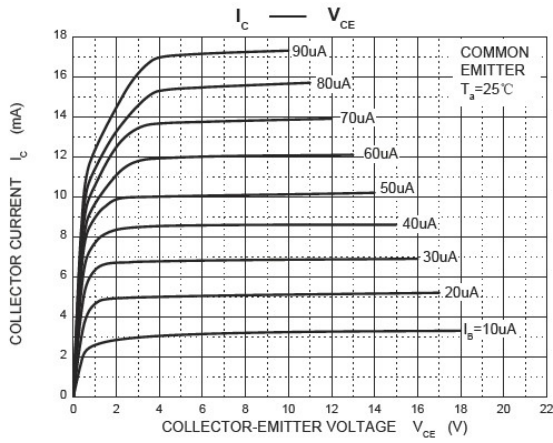
| Parameter | Symbol | Unit | Conditions | Min | Max |
|--------------------------------------|----------------------|------|--|-----|------|
| Collector-Emitter Breakdown Voltage | V _{(BR)CEO} | V | I _C =1mA, I _B =0 | 300 | --- |
| Collector-Base Breakdown Voltage | V _{(BR)CBO} | V | I _C =100μA, I _E =0 | 300 | --- |
| Emitter-Base Breakdown Voltage | V _{(BR)EBO} | V | I _E =10μA, I _C =0 | 5 | --- |
| Collector cut-off Current | I _{CBO} | nA | V _{CB} =200V, I _E =0 | --- | 250 |
| Emitter cut-off Current | I _{EBO} | nA | V _{EB} =5V, I _C =0 | --- | 100 |
| DC Current Gain | h _{FE(1)} | | I _C =1mA, V _{CE} =10V | 60 | --- |
| | h _{FE(2)} | | I _C =10mA, V _{CE} =10V | 100 | 200 |
| | h _{FE(3)} | | I _C =30mA, V _{CE} =10V | 65 | --- |
| Collector-Emitter Saturation Voltage | V _{CE(sat)} | V | I _C =20mA, I _B =2mA | --- | 0.20 |
| Base-Emitter Saturation Voltage | V _{BE(sat)} | V | I _C =20mA, I _B =2mA | --- | 0.90 |
| Current Gain-Bandwidth Product | f _T | MHz | I _C =100mA, V _{CE} =20V f=30MHz | 50 | --- |

Pulse test:pulse width≤300us,duty cycle≤2.0%

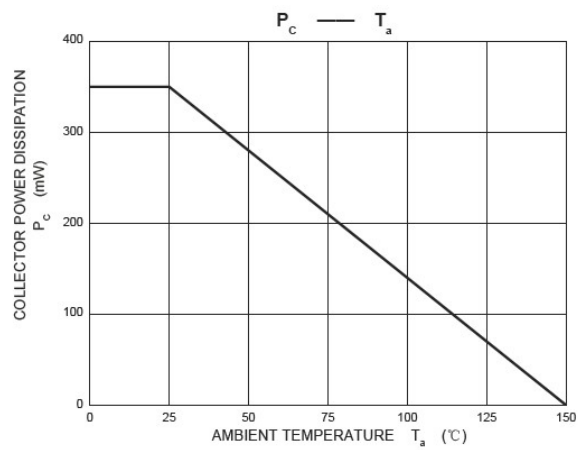
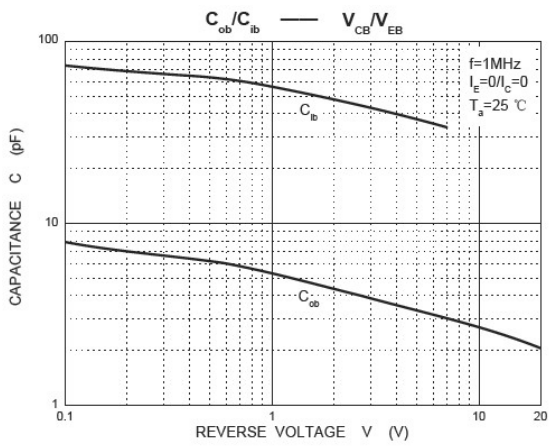
AVAILABLE PACK INFORMATION

| Product code | Pack | Reel Size (mm) | Quantity (Pcs/reel) | Quantity (pcs/box) | Quantity (pcs/carton) |
|--------------|------|----------------|---------------------|--------------------|-----------------------|
| MMBTA42 | T/R | Φ180 | 3K | 30K | 120K |

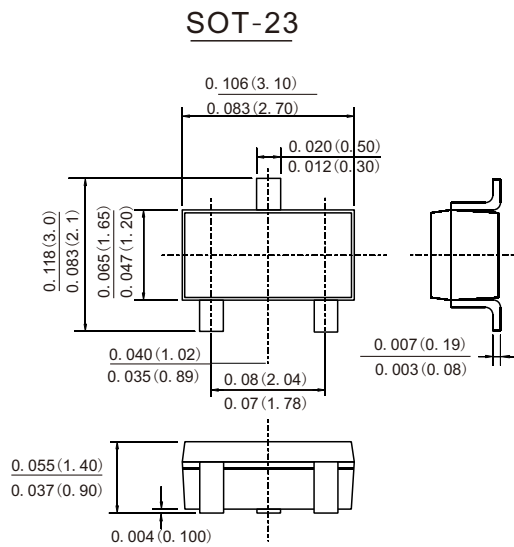
Characteristics(Typical)



MMBTA42

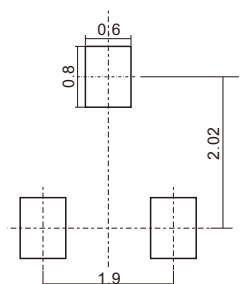


Outline Dimensions



Dimensions in inches and (millimeters)

Suggested pad layout



Dimensions in millimeters

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