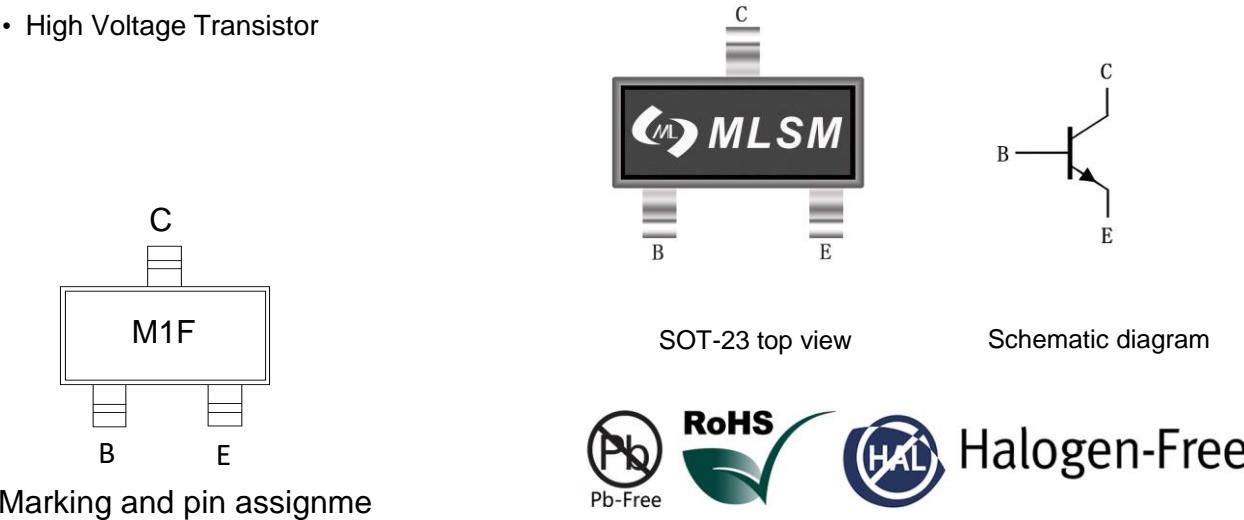


Features

- High Voltage Transistor



Maximum Ratings (Ta=25°C unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|-----------------------------------|---|------------|------|
| V _{CBO} | Collector-Base Voltage | 160 | V |
| V _{CEO} | Collector-Emitter Voltage | 140 | V |
| V _{EBO} | Emitter-Base Voltage | 6 | V |
| I _c | Collector Current | 600 | mA |
| P _c | Collector Power Dissipation | 225 | mW |
| R _{θJA} | Thermal Resistance Junction to Ambient | 556 | °C/W |
| T _j , T _{STG} | Operating and Storage Temperature Range | -55 ~ +150 | °C |

Electrical Characteristics (Ta=25°C unless otherwise specified)

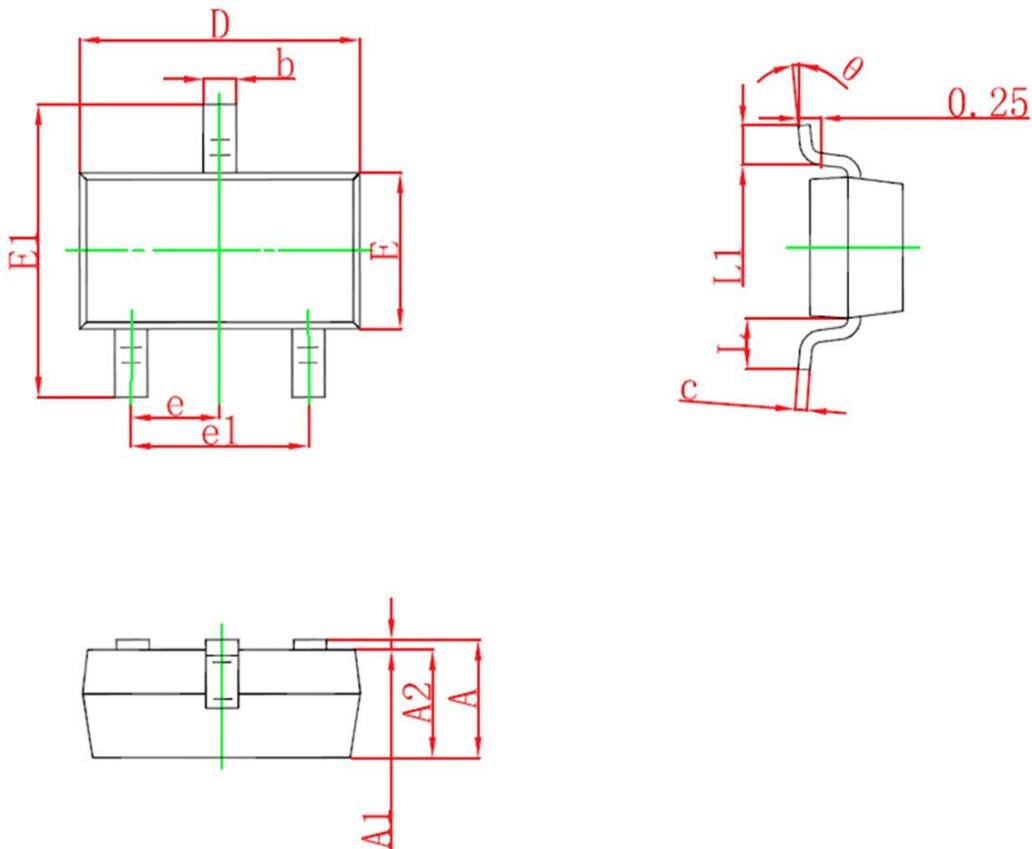
| Symbol | Parameter | Test conditions | Min | Typ | Max | Unit |
|-----------------------|--------------------------------------|---|-----|-----|------|------|
| V _{(BR)CBO} | Collector-base breakdown voltage | I _c =0.1mA, I _e =0 | 160 | -- | -- | V |
| V _{(BR)CEO*} | Collector-emitter breakdown voltage | I _c =1mA, I _b =0 | 140 | -- | -- | V |
| V _{(BR)EBO} | Emitter-base breakdown voltage | I _e =0.01mA, I _c =0 | 6 | -- | -- | V |
| I _{CBO} | Collector cut-off current | V _{CB} =100V, I _e =0 | -- | -- | 0.1 | µA |
| I _{EBO} | Emitter cut-off current | V _{EB} = 4V, I _c =0 | -- | -- | 50 | nA |
| h _{FE1} | DC current gain | V _{CE} =5V, I _c =1mA | 60 | -- | -- | |
| h _{FE2} | | V _{CE} =5V, I _c =10mA | 60 | -- | 250 | |
| h _{FE3} | | V _{CE} =5V, I _c =50mA | 20 | -- | -- | |
| V _{CE(sat)1} | Collector-emitter saturation voltage | I _c =10mA, I _b =1mA | -- | -- | 0.15 | V |
| V _{CE(sat)2} | | I _c =50mA, I _b =5mA | -- | -- | 0.25 | V |
| V _{BE(sat)1} | Base-emitter saturation voltage | I _c =10mA, I _b =1mA | -- | -- | 1 | V |
| V _{BE(sat)2} | | I _c =50mA, I _b =5mA | -- | -- | 1.2 | V |

*Pulse test: pulse width ≤300µs, duty cycle≤ 2.0%.

Ordering Information (Example)

| Type | Package | Marking | Minimum Package(pcs) | Inner Box Quantity(pcs) | Outer Carton Quantity(pcs) | Delivery Mode |
|----------|---------|---------|----------------------|-------------------------|----------------------------|---------------|
| MMBT5550 | SOT-23 | M1F | 3,000 | 45,000 | 180,000 | 7" reel |

SOT-23 Package information



| Symbol | Dimensions in Millimeters(mm) | | Dimensions In Inches | |
|--------|-------------------------------|-------|----------------------|-------|
| | Min | Max | Min | Max |
| A | 0.900 | 1.150 | 0.035 | 0.045 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.900 | 1.050 | 0.035 | 0.041 |
| b | 0.300 | 0.500 | 0.012 | 0.020 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 2.800 | 3.000 | 0.110 | 0.118 |
| E1 | 2.250 | 2.550 | 0.088 | 0.100 |
| E | 1.200 | 1.400 | 0.047 | 0.055 |
| e | 0.950TYP | | 0.037TYP | |
| e1 | 1.800 | 2.000 | 0.071 | 0.079 |
| L | 0.550 REF | | 0.022 REF | |
| L1 | 0.300 | 0.500 | 0.012 | 0.020 |
| θ | 0° | 8° | 0° | 8° |