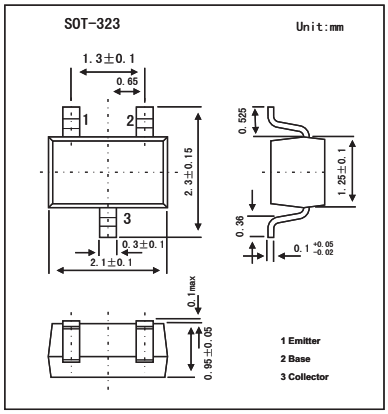
# High Voltage PNP Transistors
# MMST5401




## ■ Features

- Ultra-Small Surface Mount Package
- Ideal for Medium Power Amplification and
- Complementary NPN Type Available(MMST5551)

## ■ Absolute Maximum Ratings Ta = 25℃

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Collector-base voltage | $V_{CBO}$ | -160 | V |
| Collector-emitter voltage | $V_{CEO}$ | -150 | V |
| Emitter-base voltage | $V_{EBO}$ | -5 | V |
| Collector current-continuous | $I_C$ | -0.6 | A |
| Collector Power Dissipation | $P_C$ | 200 | mW |
| Junction and storage temperature | $T_J$, $T_{stg}$ | -55 to +150 | ℃ |

## ■ Electrical Characteristics Ta = 25℃

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C$ = -100 μA, $I_E$ = 0 | -160 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C$ =- 1.0 mA, $I_B$ = 0 | -150 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E$ = -10 μA, $I_C$ = 0 | -5 | | | V |
| Collector cutoff current | $I_{CBO}$ | $V_{CB}$ =- 120 V, $I_E$ = 0 | | | -0.1 | μA |
| Emitter cutoff current | $I_{EBO}$ | $V_{EB}$ = -4.0 V, $I_C$ = 0 | | | -0.1 | μA |
| DC current gain * | $h_{FE}$ | $I_C$ = -1.0 mA, $V_{CE}$ = -5 V | 80 | | | |
| | | $I_C$ = -10 mA, $V_{CE}$ = -5 V | 100 | | 300 | |
| | | $I_C$ = -50 mA, $V_{CE}$ = -5 V | 50 | | | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C$ = -50 mA, $I_B$ = -5.0 mA | | | -0.5 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C$ = -50 mA, $I_B$ = -5.0 mA | | | -1.0 | V |
| Transiston frequency | $f_T$ | $V_{CE}$=-5V,$I_C$=-10mA,f=30MHz | 100 | | | MHz |

* Pulse Test: Pulse Width = 300 μs, Duty Cycle=2.0%.

## ■ Marking

| Marking | K4M |
|---|---|