

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

2SA1201-x-MS

Product specification

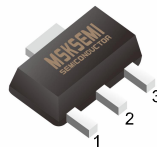
TRANSISTOR (PNP)

FEATURE

- High voltage
- High transition frequency
- Complementary to 2SC2881-x-MS

Reference News

SOT-89



1. BASE
2. COLLECTOR
3. EMITTER

MARKING

| 2SA1201-O-MS | 2SA1201-Y-MS |
|--------------|--------------|
| DO | DY |

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|------------------|---|---------|------|
| V _{CBO} | Collector-Base Voltage | -120 | V |
| V _{CEO} | Collector-Emitter Voltage | -120 | V |
| V _{EBO} | Emitter-Base Voltage | -5 | V |
| I _C | Collector Current -Continuous | -0.8 | A |
| P _C | Collector Power Dissipation | 0.5 | W |
| T _J | Junction Temperature | 150 | °C |
| T _{stg} | Storage Temperature | -55-150 | °C |
| R _{θJA} | Thermal Resistance from Junction to Ambient | 250 | °C |

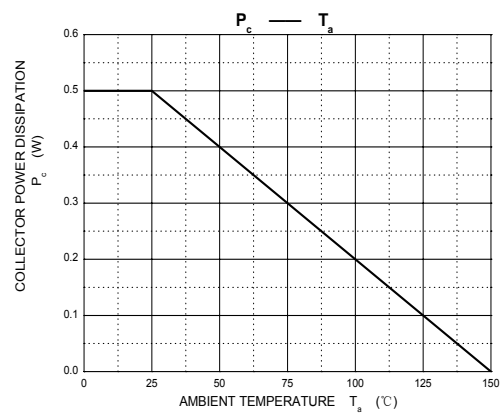
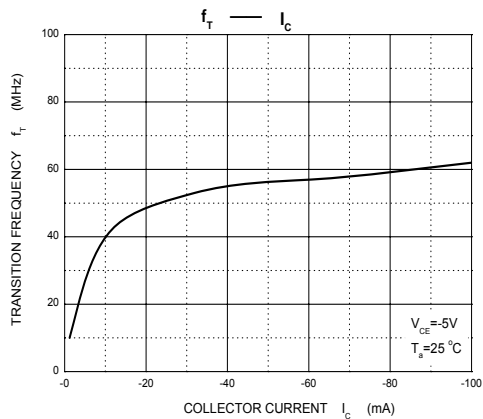
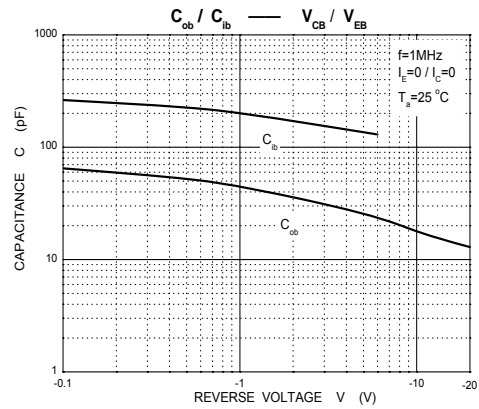
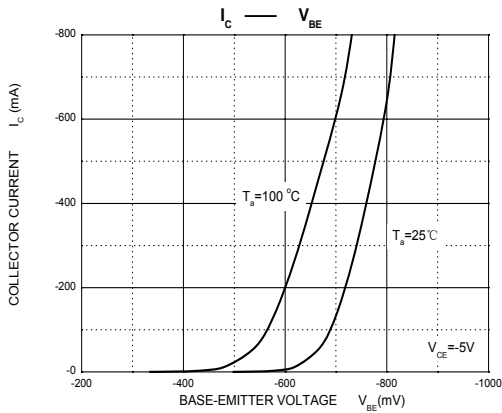
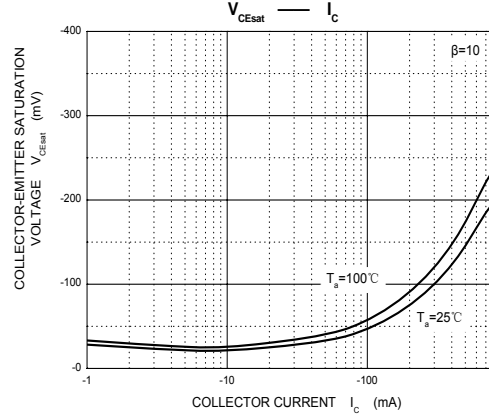
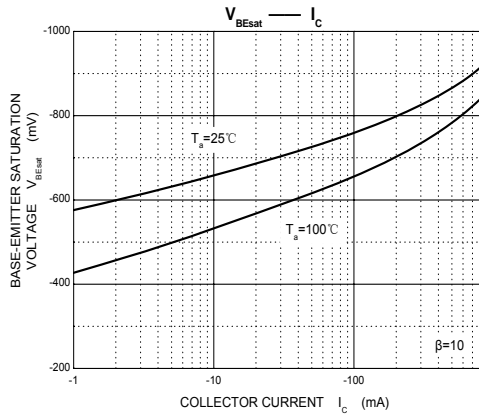
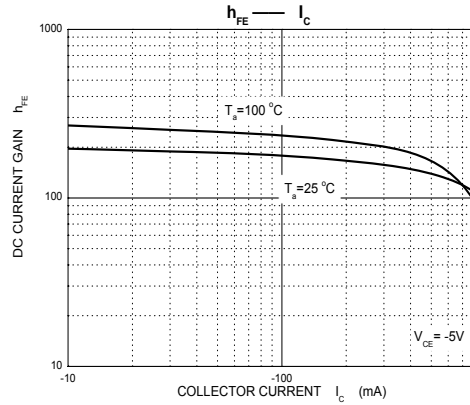
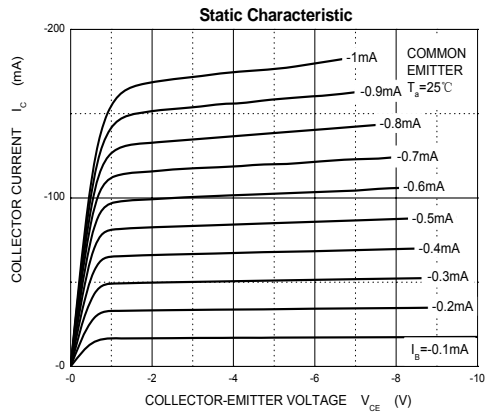
ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|--------------------------------------|---------------|--|------|-----|------|---------------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C=-1\text{mA}, I_E=0$ | -120 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C=-10\text{mA}, I_B=0$ | -120 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E=-1\text{mA}, I_C=0$ | -5 | | | V |
| Collector cut-off current | I_{CBO} | $V_{CB}=-120\text{V}, I_E=0$ | | | -0.1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB}=-5\text{V}, I_C=0$ | | | -0.1 | μA |
| DC current gain | h_{FE} | $V_{CE}=-5\text{V}, I_C=-100\text{mA}$ | 80 | | 240 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=-500\text{mA}, I_B=-50\text{mA}$ | | | -1 | V |
| Base-emitter voltage | V_{BE} | $V_{CE}=-5\text{V}, I_C=-500\text{mA}$ | | | -1 | V |
| Transition frequency | f_T | $V_{CE}=-5\text{V}, I_C=-100\text{mA}$ | | 120 | | MHz |
| Collector output capacitance | C_{ob} | $V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$ | | | 30 | pF |

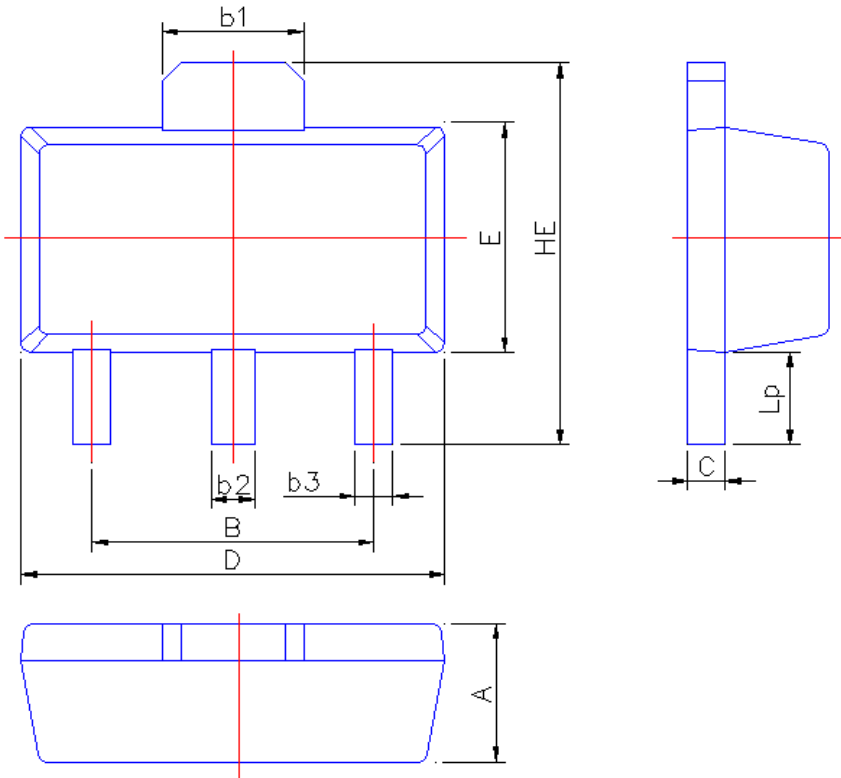
CLASSIFICATION OF h_{FE}

| Rank | 2SA1201-O-MS | 2SA1201-Y-MS |
|-------|--------------|--------------|
| Range | 80-160 | 120-240 |

Typical Characteristics



PACKAGE MECHANICAL DATA



SOT-89

| Symbol | Dimension in Millimeters | |
|--------|--------------------------|------|
| | Min | Max |
| A | 1.40 | 1.60 |
| B | 2.95 | 3.05 |
| b1 | 1.45 | 1.70 |
| b2 | 0.45 | 0.60 |
| b3 | 0.35 | 0.50 |
| C | 0.35 | 0.50 |
| D | 4.40 | 4.60 |
| E | 2.35 | 2.55 |
| HE | 3.90 | 4.40 |
| Lp | 0.90 | 1.10 |

REELSPECIFICATION

| P/N | PKG | QTY |
|--------------|--------|------|
| 2SA1201-x-MS | SOT-89 | 1000 |

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