



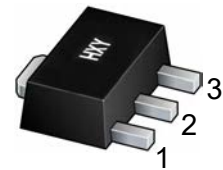
Features

- High voltage: $V_{CEO}=80V$
- High Breakdown Voltage and Current
- Excellent DC Current Gain Linearity
- Low Collector-Emitter Saturation Voltage

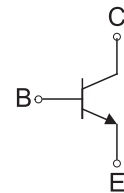
1. BASE

2. COLLECTOR

3. EMITTER



SOT-89



Package Marking and Ordering Information

| Product ID | Pack | Marking | Qty(PCS) |
|------------|--------|---------|----------|
| NTE2428 | SOT-89 | DF | 1000 |

Maxmim Ratings (Ta=25 unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|----------------|--|----------|------|
| V_{CBO} | Collector-Base Voltage | 100 | V |
| V_{CEO} | Collector-Emitter Voltage | 80 | V |
| V_{EBO} | Emitter-Base Voltage | 5 | V |
| I_C | Collector Current -Continuous | 1 | A |
| P_C | Collector Power Dissipation | 0.5 | W |
| T_J, T_{stg} | Operation Junction and Storage Temperature Range | -55~+150 | °C |

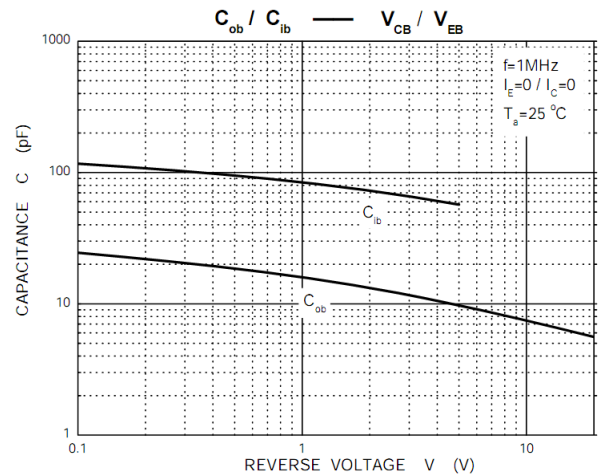
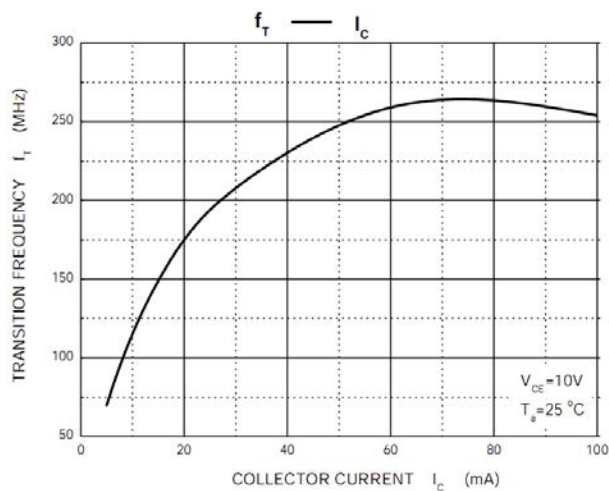
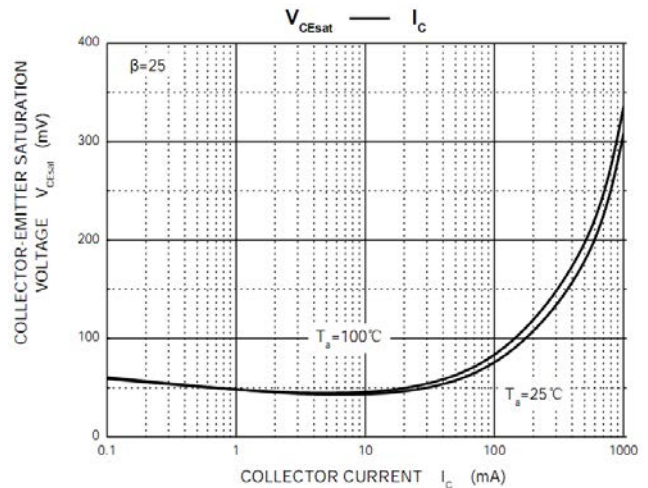
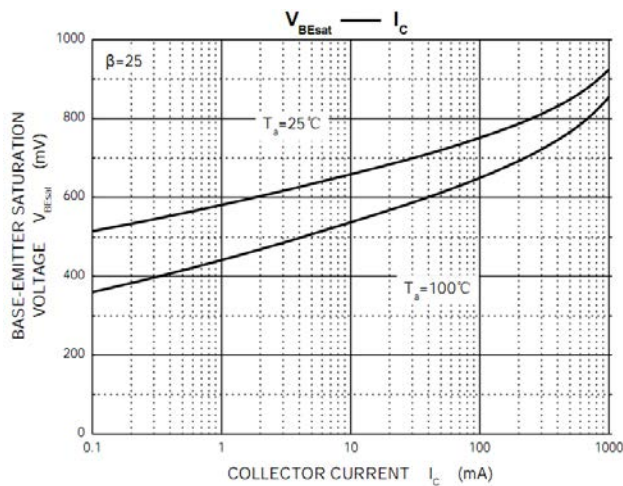
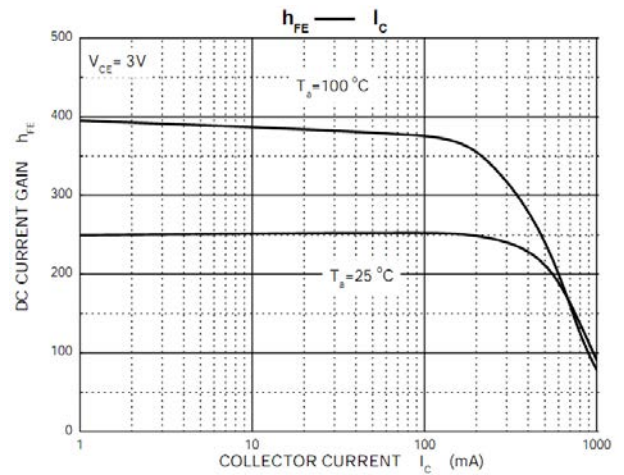
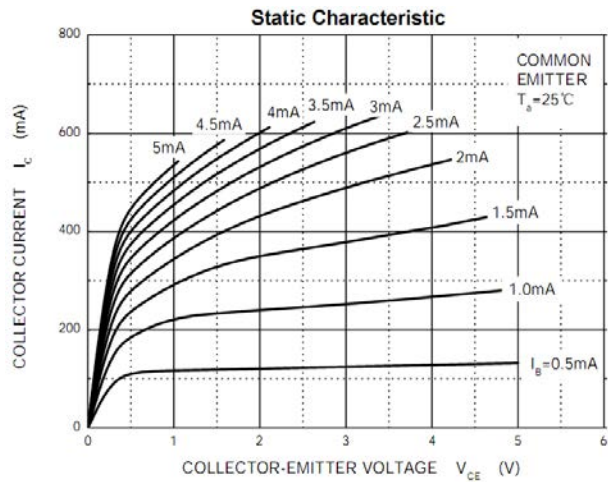
Electrcal Charcteristics (Ta=25 unless otherwise specified)

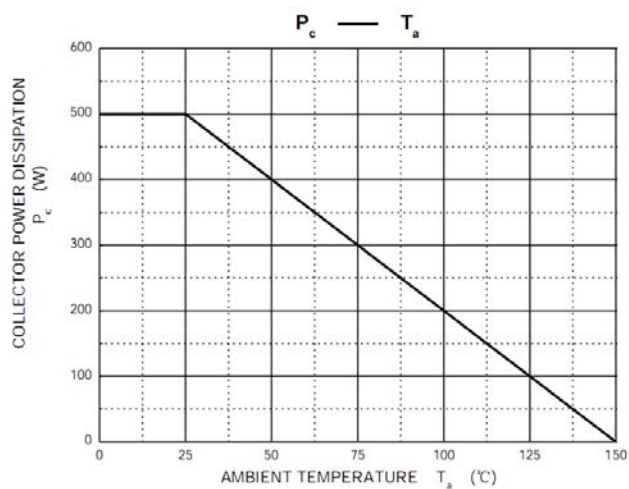
| Parameter | Symbol | Test conditions | Min | Max | Unit |
|--------------------------------------|-----------------|-----------------------------|-----|-----|---------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C=50\mu A, I_E=0$ | 100 | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}^*$ | $I_C=1mA, I_B=0$ | 80 | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E=50\mu A, I_C=0$ | 5 | | V |
| Collector cut-off current | I_{CBO} | $V_{CB}=80V, I_E=0$ | | 1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB}=4V, I_C=0$ | | 1 | μA |
| DC current gain | h_{FE} | $V_{CE}=5V, I_C=200mA$ | 180 | 390 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=500mA, I_B=20mA$ | | 0.4 | V |
| Transition frequency | f_T | $V_{CE}=10V, I_C=200mA$ | 100 | | MHz |
| Collector output capacitance | C_{ob} | $V_{CB}=10V, I_E=0, f=1MHz$ | | 20 | pF |

* pulse test

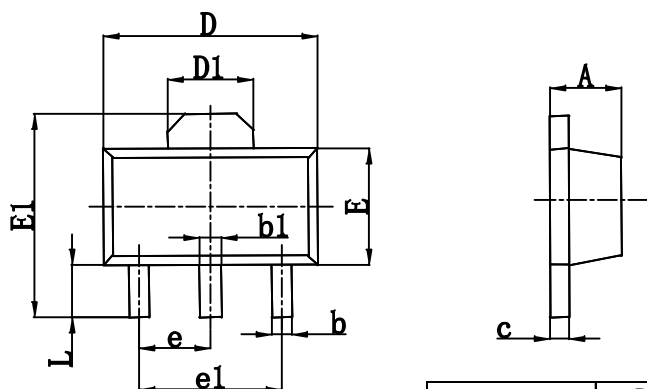


Typical Characteristics





SOT-89 Package Outline Dimensions



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min | Max | Min | Max |
| A | 1.400 | 1.600 | 0.055 | 0.063 |
| b | 0.320 | 0.520 | 0.013 | 0.020 |
| b1 | 0.400 | 0.580 | 0.016 | 0.023 |
| c | 0.350 | 0.440 | 0.014 | 0.017 |
| D | 4.400 | 4.600 | 0.173 | 0.181 |
| D1 | 1.550 REF. | | 0.061 REF. | |
| E | 2.300 | 2.600 | 0.091 | 0.102 |
| E1 | 3.940 | 4.250 | 0.155 | 0.167 |
| e | 1.500 TYP. | | 0.060 TYP. | |
| e1 | 3.000 TYP. | | 0.118 TYP. | |
| L | 0.900 | 1.200 | 0.035 | 0.047 |



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