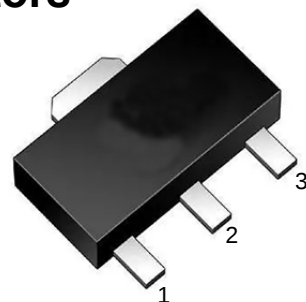


## SOT-89-3L Plastic-Encapsulate Transistors

**PXT8550** TRANSISTOR (PNP)

### • Features

- Compliment to PXT8050



1. BASE  
2. COLLECTOR  
3. EMITTER

SOT-89-3L

### • MAXIMUM RATINGS $(T_C=25^{\circ}\text{C})$

| Parameter                                        | Symbol          | Limit    | Unit                 |
|--------------------------------------------------|-----------------|----------|----------------------|
| Collector-Base Voltage                           | $V_{CBO}$       | -40      | V                    |
| Collector-Emitter Voltage                        | $V_{CEO}$       | -25      | V                    |
| Emitter-Base Voltage                             | $V_{EBO}$       | -5       | V                    |
| Collector Current                                | $I_C$           | -1.5     | A                    |
| Collector Power Dissipation                      | $P_C$           | 500      | mW                   |
| Thermal Resistance From Junction To Ambient      | $R_{\theta JA}$ | 250      | $^{\circ}\text{C/W}$ |
| Operation Junction and Storage Temperature Range | $T_J, T_{stg}$  | -55~+150 | $^{\circ}\text{C}$   |

### • ELECTRICAL CHARACTERISTICS $(T_a=25^{\circ}\text{C})$

| Parameter                            | Symbol        | Test conditions                                  | Min | Max   | Unit          |
|--------------------------------------|---------------|--------------------------------------------------|-----|-------|---------------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C = -100\mu\text{A}, I_E = 0$                 | -40 |       | V             |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C = -0.1\text{mA}, I_B = 0$                   | -25 |       | V             |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E = -100\mu\text{A}, I_C = 0$                 | -5  |       | V             |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB} = -40\text{V}, I_E = 0$                  |     | -0.1  | $\mu\text{A}$ |
| Collector cut-off current            | $I_{CEO}$     | $V_{CE} = -20\text{V}, I_B = 0$                  |     | -0.1  | $\mu\text{A}$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB} = -5\text{V}, I_C = 0$                   |     | -0.1  | $\mu\text{A}$ |
| DC current gain                      | $h_{FE(1)}$   | $V_{CE} = -1\text{V}, I_C = -100\text{mA}$       | 85  | 400   |               |
|                                      | $h_{FE(2)}$   | $V_{CE} = -1\text{V}, I_C = -800\text{mA}$       | 40  |       |               |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -800\text{mA}, I_B = -80\text{mA}$        |     | -0.5  | V             |
| Base-emitter saturation voltage      | $V_{BE(sat)}$ | $I_C = -800\text{mA}, I_B = -80\text{mA}$        |     | -1.2  | V             |
| Base-emitter on voltage              | $V_{BE(on)}$  | $I_C = -1\text{V}, V_{CE} = -10\text{mA}$        |     | -1    | V             |
| Base-emitter positive favor voltage  | $V_{BEF}$     | $I_B = -1\text{A}$                               |     | -1.55 | V             |
| Transition frequency                 | $f_T$         | $V_{CE} = -10\text{V}, I_C = -50\text{mA}$       | 100 |       | MHz           |
| output capacitance                   | $C_{ob}$      | $V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$ |     | 20    | pF            |

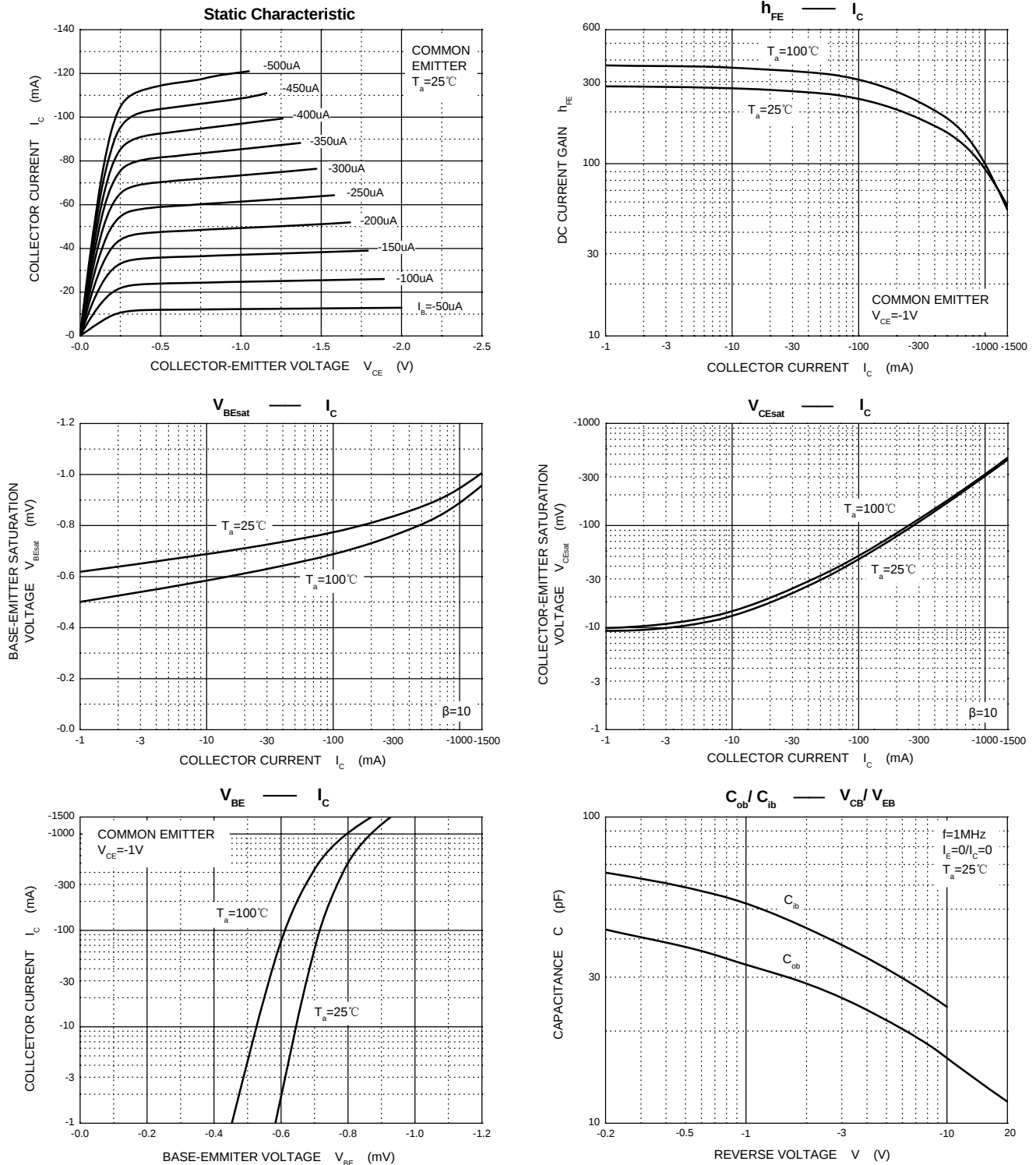
### • CLASSIFICATION OF $h_{FE(1)}$

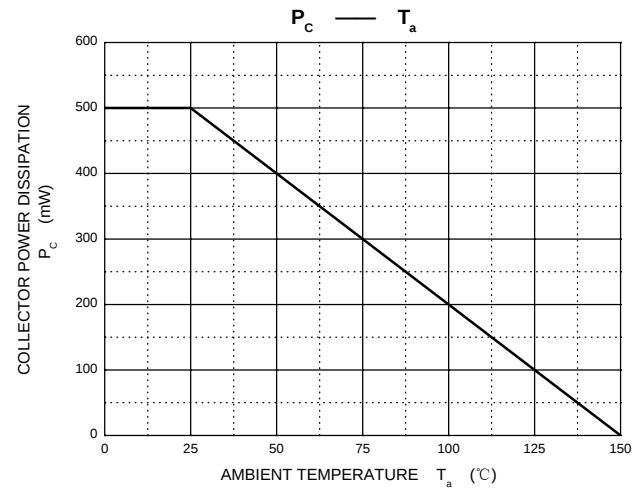
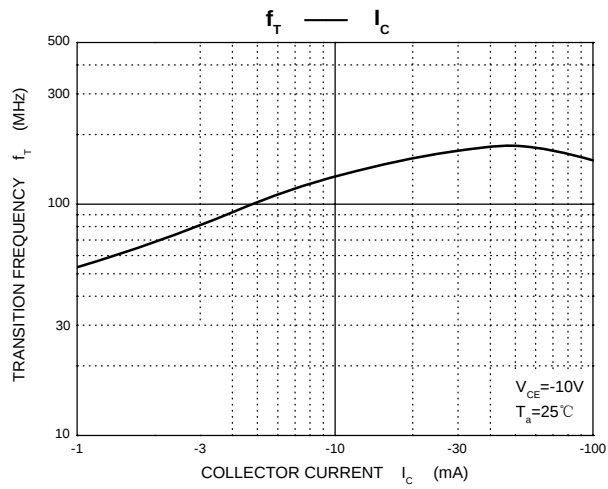
| Rank  | B      | C       | D       | D3      |
|-------|--------|---------|---------|---------|
| Range | 85-160 | 120-200 | 160-300 | 300-400 |

## • Ordering Information:

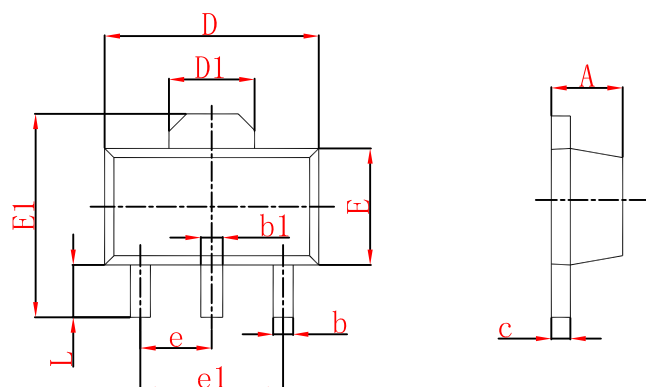
|                           |           |
|---------------------------|-----------|
| Part NO.                  | PXT8550   |
| Marking                   | Y2        |
| Packing Information       | REEL TAPE |
| Basic ordering unit (pcs) | 1000      |

## • Typical Characteristics

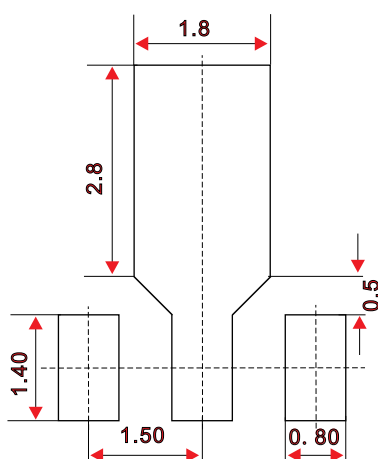




## SOT-89-3L Package Outline Dimensions



| 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 |



Note:  
 1. Controlling dimension: in millimeters.  
 2. General tolerance:  $\pm 0.05$  mm.  
 3. The pad layout is for reference purposes only.