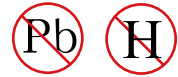




General Purpose Transistors

PNP Silicon



FEATURE

Pb-Free Package is available.

ORDERING INFORMATION

| Device | Package | Shipping |
|--------|---------|----------------|
| 8550* | SOT-23 | 3000/Tape&Reel |

MAXIMUM RATINGS

| Rating | Symbol | Value | Unit |
|------------------------------|-----------|-------|------|
| Collector-Emitter Voltage | V_{CEO} | 25 | V |
| Collector-Base voltage | V_{CBO} | 40 | V |
| Emitter-base Voltage | V_{EBO} | 5 | V |
| Collector current-continuoun | I_C | 800 | mAdc |

THERMAL CHARACTERISTICS

| Characteristic | Symbol | Max | Unit |
|---|-----------------|-------------|-------|
| Total Device Dissipation FR- 5 Board (1) | P_D | 225 | mW |
| $T_A = 25^\circ\text{C}$ | | 1.8 | mW/°C |
| Derate above 25 °C | | 556 | °C/W |
| Thermal Resistance, Junction to Ambient | $R_{\theta JA}$ | | |
| Total Device Dissipation | P_D | 300 | mW |
| Alumina Substrate, (2) $T_A = 25^\circ\text{C}$ | | 2.4 | mW/°C |
| Derate above 25 °C | | 417 | °C/W |
| Thermal Resistance, Junction to Ambient | $R_{\theta JA}$ | | |
| Junction and Storage Temperature | T_J, T_{stg} | -55 to +150 | °C |

DEVICEMARKING

8550P = 85P 8550Q = 1YD

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

| Characteristic | Symbol | Min | Typ | Max | Unit |
|----------------|--------|-----|-----|-----|------|
|----------------|--------|-----|-----|-----|------|

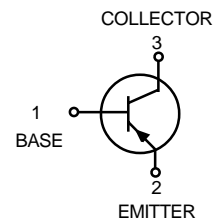
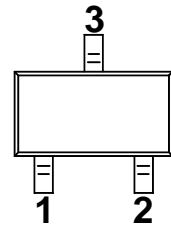
OFF CHARACTERISTICS

| | | | | | |
|---|---------------|----|---|-----|----|
| Collector-Emitter Breakdown Voltage ($I_C = 1.0\text{mA}$) | $V_{(BR)CEO}$ | 25 | — | — | V |
| Emitter-Base Breakdown Voltage ($I_E = 100\mu\text{A}$) | $V_{(BR)EBO}$ | 5 | — | — | V |
| Collector-Base Breakdown voltage ($I_C = 100\mu\text{A}$) | $V_{(BR)CBO}$ | 40 | — | — | V |
| Collector Cutoff Current ($V_{CB} = 35\text{V}$) | I_{CBO} | — | — | 150 | nA |
| Emitter Cutoff Current ($V_{EB} = 4\text{V}$) | I_{EBO} | — | — | 150 | nA |

1. FR-5 = 1.0 x 0.75 x 0.062 in.

2. Alumina = 0.4 x 0.3 x 0.024 in. 99.5% alumina.

SOT-23 (TO-236AB)



ELECTRICAL CHARACTERISTICS

8550P/Q

ON CHARACTERISTICS

| Characteristic | Symbol | Min | Typ | Max | Unit |
|--|-------------|-----|-----|-----|------|
| DC Current Gain ($I_C=100\text{mA}$ $V_{CE}=1\text{V}$) | h_{FE} | 100 | — | 300 | |
| Collector-Emitter Saturation Voltage ($I_C=800\text{mA}$ $I_B=80\text{mA}$) | $V_{CE(S)}$ | — | — | 0.5 | V |

NOTE :

| * | P | Q |
|----------|---------|---------|
| h_{FE} | 100~200 | 150~300 |

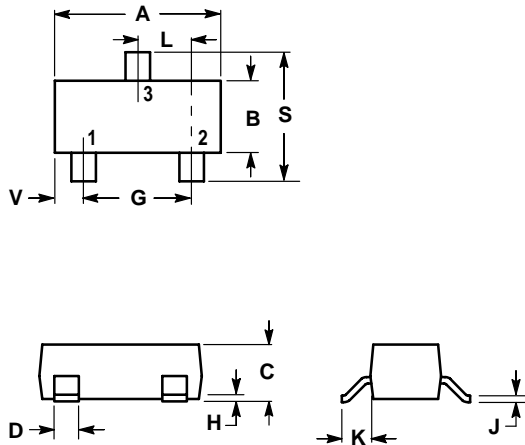
PACKAGE OUTLINE & DIMENSIONS

8550P/Q

SOT-23

NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M,1982
2. CONTROLLING DIMENSION: INCH.



| DIM | INCHES | | MILLIMETERS | |
|-----|--------|--------|-------------|-------|
| | MIN | MAX | MIN | MAX |
| A | 0.1102 | 0.1197 | 2.80 | 3.04 |
| B | 0.0472 | 0.0551 | 1.20 | 1.40 |
| C | 0.0350 | 0.0440 | 0.89 | 1.11 |
| D | 0.0150 | 0.0200 | 0.37 | 0.50 |
| G | 0.0701 | 0.0807 | 1.78 | 2.04 |
| H | 0.0005 | 0.0040 | 0.013 | 0.100 |
| J | 0.0034 | 0.0070 | 0.085 | 0.177 |
| K | 0.0140 | 0.0285 | 0.35 | 0.69 |
| L | 0.0350 | 0.0401 | 0.89 | 1.02 |
| S | 0.0830 | 0.1039 | 2.10 | 2.64 |
| V | 0.0177 | 0.0236 | 0.45 | 0.60 |

