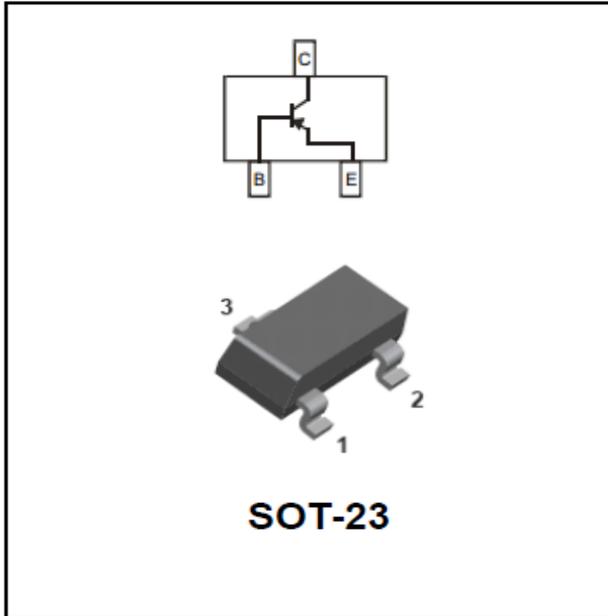


## PNP General Purpose Amplifier



### Features

- Capable of 0.625Watts(TA=25°C) of Power Dissipation
- Collector-current 1.5A
- Collector-base Voltage 40V
- Epoxy meets UL-94 V-0 flammability rating
- Halogen free available upon request by adding suffix "HF"
- Moisture Sensitivity Level 1
- Marking: Y2

### ■ Off Characteristics

| Item                           | Symbol    | Unit         | Conditions                    | MIN         | MAX |
|--------------------------------|-----------|--------------|-------------------------------|-------------|-----|
| Collector-Emitter Voltage*     | $V_{CEO}$ | V            | $I_C=0.1mA_{dc}$ , $I_B=0$    | 25          |     |
| Collector-Base Voltage         | $V_{CBO}$ | V            | $I_C=100\mu A_{dc}$ , $I_E=0$ | 40          |     |
| Emitter-Base Voltage           | $V_{EBO}$ | V            | $I_E=100\mu A_{dc}$ , $I_C=0$ | 6.0         |     |
| Emitter Cutoff Current         | $I_{EBO}$ | $\mu A_{dc}$ | $V_{EB}=5.0V_{dc}$ , $I_C=0$  |             | 0.1 |
| Collector Cutoff Current       | $I_{CBO}$ | $\mu A_{dc}$ | $V_{CB}=40V_{dc}$ , $I_E=0$   |             | 0.1 |
| Collector Cutoff Current       | $I_{CE0}$ | $\mu A_{dc}$ | $V_{CE}=20V_{dc}$ , $I_B=0$   |             | 0.1 |
| Power Dissipation              | $P_D$     | mW           |                               | 600         |     |
| Operation Junction Temperature | $T_J$     | °C           |                               | -55 to +150 |     |
| Storage Temperature            | $T_{STG}$ | °C           |                               | -55 to +150 |     |



# MMSS8550

## ■ On Characteristics

| Item                                 | Symbol        | Unit | Conditions                                  | Min | Max |
|--------------------------------------|---------------|------|---|-----|-----|
| DC Current Gain                      | $h_{FE}$      |      | $I_C=100\text{mA}$ , $V_{CE}=1.0\text{Vdc}$ | 120 | 350 |
|                                      |               |      | $I_C=800\text{mA}$ , $V_{CE}=1.0\text{Vdc}$ | 40  |     |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | V    | $I_C=800\text{mA}$ , $I_B=80\text{mA}$      |     | 0.5 |
| Base-Emitter Saturation Voltage      | $V_{EB(sat)}$ | V    | $I_C=800\text{mA}$ , $I_B=80\text{mA}$      |     | 1.2 |

## ■ Small-signal Characteristics

| Item                           | Symbol | Unit | Conditions   | Min | Max |
|--------------------------------|--------|------|--|-----|-----|
| Current Gain-Bandwidth Product | $f_T$  | MHz  | $I_C=50\text{mA}$ , $V_{CE}=10\text{Vdc}$ , $f=30\text{MHz}$ | 100 |     |

## ■ Classification of $h_{FE}$

| Rank  | L       | H       |
|-------|---------|---------|
| Range | 120-200 | 200-350 |

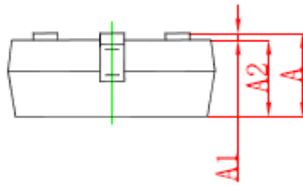
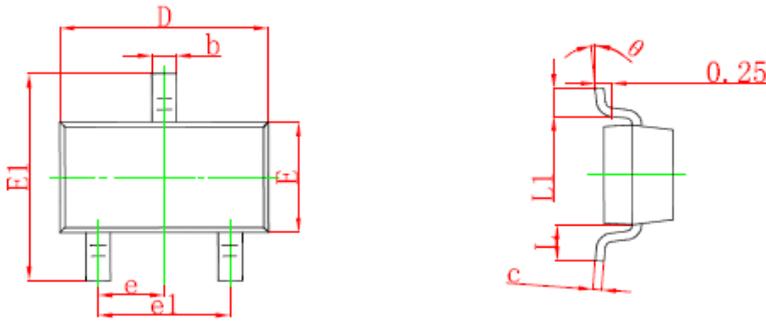
## ■ Ordering Information (Example)

| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g)    | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| MMSS8550      | F2           | Approximate 0.008 | 3000                 | 30000                   | 120000                     | 7" reel       |



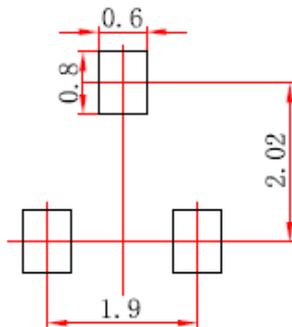
# MMSS8550

## ■ SOT-23 Package Outline Dimensions



| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min                       | Max   | Min                  | Max   |
| A      | 0.900                     | 1.150 | 0.035                | 0.045 |
| A1     | 0.000                     | 0.100 | 0.000                | 0.004 |
| A2     | 0.900                     | 1.050 | 0.035                | 0.041 |
| b      | 0.300                     | 0.500 | 0.012                | 0.020 |
| c      | 0.080                     | 0.150 | 0.003                | 0.006 |
| D      | 2.800                     | 3.000 | 0.110                | 0.118 |
| E      | 1.200                     | 1.400 | 0.047                | 0.055 |
| E1     | 2.250                     | 2.550 | 0.089                | 0.100 |
| e      | 0.950 TYP                 |       | 0.037 TYP            |       |
| e1     | 1.800                     | 2.000 | 0.071                | 0.079 |
| L      | 0.550 REF                 |       | 0.022 REF            |       |
| L1     | 0.300                     | 0.500 | 0.012                | 0.020 |
| θ      | 0°                        | 8°    | 0°                   | 8°    |

## ■ SOT-23 Suggested Pad Layout



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



## MMSS8550

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