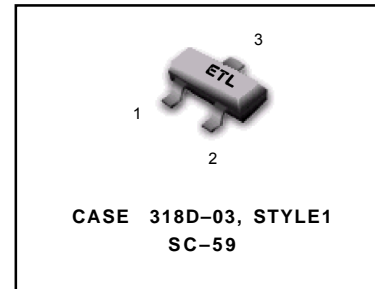
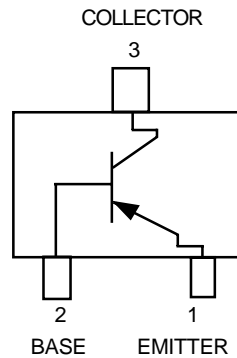


# PNP RF Amplifier Transistor

## Surface Mount

**MSA1022-CT1**



### MAXIMUM RATINGS (T<sub>A</sub> = 25 °C)

| Rating                         | Symbol           | Value | Unit            |
|--------------------------------|------------------|-------|-----------------|
| Collector-Base Voltage         | V <sub>CBO</sub> | -30   | V <sub>dc</sub> |
| Collector-Emitter Voltage      | V <sub>CEO</sub> | -20   | V <sub>dc</sub> |
| Emitter-Base Voltage           | V <sub>EBO</sub> | -5.0  | V <sub>dc</sub> |
| Collector Current - Continuous | I <sub>C</sub>   | -30   | mAdc            |

### THERMAL CHARACTERISTICS

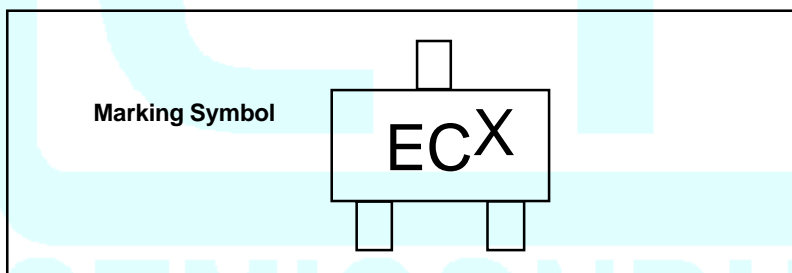
| Characteristic       | Symbol           | Max        | Unit |
|----------------------|------------------|------------|------|
| Power Dissipation    | P <sub>D</sub>   | 200        | mW   |
| Junction Temperature | T <sub>J</sub>   | 150        | °C   |
| Storage Temperature  | T <sub>stg</sub> | -55 ~ +150 | °C   |

### ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25 °C)

| Characteristic  | Symbo            | IMin | Max  | Unit |
|---|------------------|------|------|------|
| Collector Cutoff Current<br>(V <sub>CB</sub> = -10 V <sub>dc</sub> , I <sub>E</sub> = 0)                | I <sub>CBO</sub> | —    | -0.1 | μAdc |
| Collector-Emitter Breakdown Voltage<br>(V <sub>CE</sub> = -20 V <sub>dc</sub> , I <sub>B</sub> = 0)     | I <sub>CEO</sub> | —    | -100 | μAdc |
| Emitter-Base Breakdown Voltage<br>(V <sub>EB</sub> = -5.0 V <sub>dc</sub> , I <sub>C</sub> = 0)         | I <sub>EBO</sub> | —    | -10  | μAdc |
| DC Current Gain (1)<br>(V <sub>CE</sub> = -10 V <sub>dc</sub> , I <sub>C</sub> = -1.0 mAdc)             | h <sub>FE</sub>  | 110  | 220  | —    |
| Current-Gain - Bandwidth Product<br>(V <sub>CB</sub> = -10 V <sub>dc</sub> , I <sub>E</sub> = 1.0 mAdc) | f <sub>T</sub>   | 150  | —    | MHz  |

1. Pulse Test: Pulse Width ≤ 300 μs, D.C. ≤ 2%.

### DEVICE MARKING



The "X" represents a smaller alpha digit Date Code. The Date Code indicates the actual month in which the part was manufactured.