

MSA1162GT1, MSA1162YT1

General Purpose Amplifier Transistors

PNP Surface Mount

Features

- Moisture Sensitivity Level: 1
- ESD Rating: TBD
- Pb-Free Packages are Available

MAXIMUM RATINGS (T_A = 25°C)

| Rating | Symbol | Value | Unit |
|--------------------------------|----------------------|-------|------|
| Collector-Base Voltage | V _{(BR)CBO} | 60 | Vdc |
| Collector-Emitter Voltage | V _{(BR)CEO} | 50 | Vdc |
| Emitter-Base Voltage | V _{(BR)EBO} | 7.0 | Vdc |
| Collector Current - Continuous | I _C | 100 | mAdc |
| Collector Current - Peak | I _{C(P)} | 200 | mAdc |

THERMAL CHARACTERISTICS

| Characteristic | Symbol | Max | Unit |
|----------------------|------------------|-------------|------|
| Power Dissipation | P _D | 200 | mW |
| Junction Temperature | T _J | 150 | °C |
| Storage Temperature | T _{stg} | -55 to +150 | °C |

Maximum ratings are those values beyond which device damage can occur. Maximum ratings applied to the device are individual stress limit values (not normal operating conditions) and are not valid simultaneously. If these limits are exceeded, device functional operation is not implied, damage may occur and reliability may be affected.

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

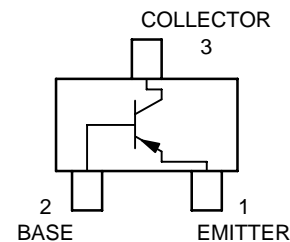
| Characteristic | Symbol | Min | Max | Unit |
|--|----------------------|------------|-------------------|----------------------|
| Collector-Emitter Breakdown Voltage (I _C = 2.0 mAdc, I _B = 0) | V _{(BR)CEO} | 50 | - | Vdc |
| Collector-Base Breakdown Voltage (I _C = 10 μAdc, I _E = 0) | V _{(BR)CBO} | 60 | - | Vdc |
| Emitter-Base Breakdown Voltage (I _E = 10 μAdc, I _C = 0) | V _{(BR)EBO} | 7.0 | - | Vdc |
| Collector-Base Cutoff Current (V _{CB} = 45 Vdc, I _E = 0) | I _{CBO} | - | 0.1 | μAdc |
| Collector-Emitter Cutoff Current (V _{CE} = 10 Vdc, I _B = 0) (V _{CE} = 30 Vdc, I _B = 0) (V _{CE} = 30 Vdc, I _B = 0, T _A = 80°C) | I _{CEO} | - | 0.1 2.0 1.0 | μAdc μAdc mAdc |
| DC Current Gain (Note 1) (V _{CE} = 6.0 Vdc, I _C = 2.0 mAdc) | h _{FE} | | | - |
| | | 120 200 | 240 400 | |
| Collector-Emitter Saturation Voltage (I _C = 100 mAdc, I _B = 10 mAdc) | V _{CE(sat)} | - | 0.5 | Vdc |
| Current-Gain - Bandwidth Product (I _C = 1 mA, V _{CE} = 10.0 V, f = 10 MHz) | f _T | 80 | - | MHz |

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



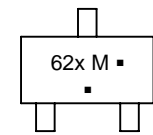
ON Semiconductor®

<http://onsemi.com>



SC-59
CASE 318D
STYLE 1

MARKING DIAGRAM



62x = Device Code
x = G or Y
M = Date Code*
■ = Pb-Free Package

(Note: Microdot may be in either location)
*Date Code orientation may vary depending upon manufacturing location.

ORDERING INFORMATION

| Device* | Package | Shipping† |
|-------------|--------------------|------------------|
| MSA1162GT1 | SC-59 | 3000/Tape & Reel |
| MSA1162GT1G | SC-59 (Pb-Free) | 3000/Tape & Reel |
| MSA1162YT1 | SC-59 | 3000/Tape & Reel |
| MSA1162YT1G | SC-59 (Pb-Free) | 3000/Tape & Reel |

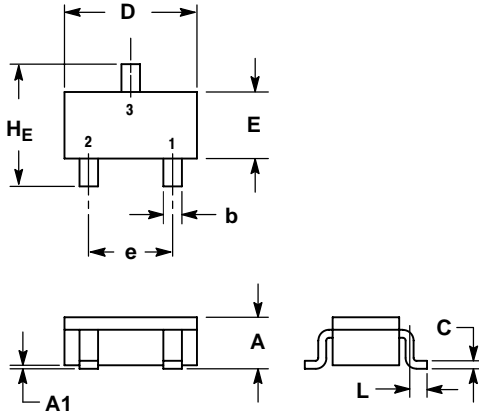
*The "T1" suffix refers to a 7 inch reel.

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

MSA1162GT1, MSA1162YT1

PACKAGE DIMENSIONS

SC-59
CASE 318D-04
ISSUE G



NOTES:

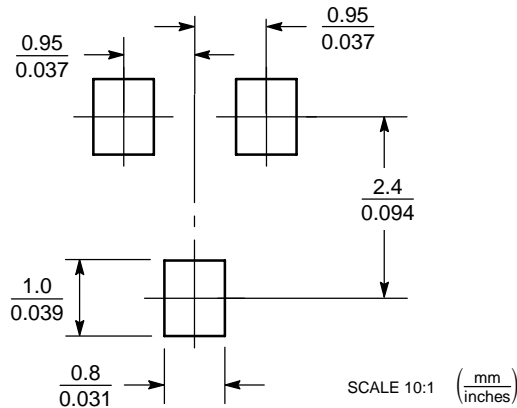
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETER.

| DIM | MILLIMETERS | | | INCHES | | |
|-----|-------------|------|------|--------|-------|-------|
| | MIN | NOM | MAX | MIN | NOM | MAX |
| A | 1.00 | 1.15 | 1.30 | 0.039 | 0.045 | 0.051 |
| A1 | 0.01 | 0.06 | 0.10 | 0.001 | 0.002 | 0.004 |
| b | 0.35 | 0.43 | 0.50 | 0.014 | 0.017 | 0.020 |
| c | 0.09 | 0.14 | 0.18 | 0.003 | 0.005 | 0.007 |
| D | 2.70 | 2.90 | 3.10 | 0.106 | 0.114 | 0.122 |
| E | 1.30 | 1.50 | 1.70 | 0.051 | 0.059 | 0.067 |
| e | 1.70 | 1.90 | 2.10 | 0.067 | 0.075 | 0.083 |
| L | 0.20 | 0.40 | 0.60 | 0.008 | 0.016 | 0.024 |
| HE | 2.50 | 2.80 | 3.00 | 0.099 | 0.110 | 0.118 |

STYLE 1:

1. EMITTER
2. BASE
3. COLLECTOR

SOLDERING FOOTPRINT*



*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

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