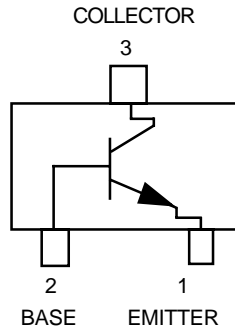


NPN General Purpose Amplifier Transistor Surface Mount

MSD602-RT1



CASE 318D-03, STYLE1
SC-59

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 | 500 | mAdc |
| Collector Current-Peak | I _{C(P)} | 1.0 | Adc |

THERMAL CHARACTERISTICS

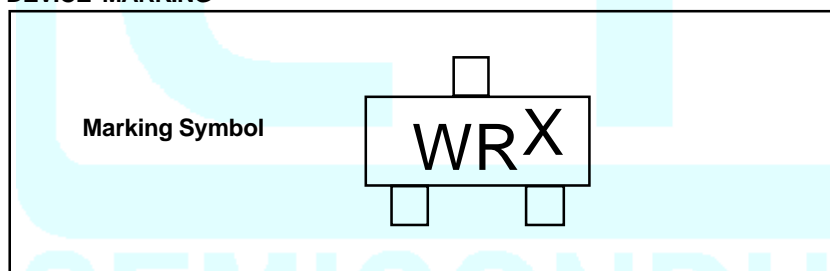
| Characteristic | Symbol | Max | Unit |
|----------------------|------------------|------------|------|
| Power Dissipation | P _D | 200 | mW |
| Junction Temperature | T _J | 150 | °C |
| Storage Temperature | T _{stg} | -55 ~ +150 | °C |

ELECTRICAL CHARACTERISTICS (T_A = 25°C)

| Characteristic | Symbol | Min | Max | Unit |
|--|----------------------|-----|-----|------|
| Collector-Emitter Breakdown Voltage (I _C = 10 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} = 20Vdc, I _E = 0) | I _{CBO} | — | 0.1 | μAdc |
| DC Current Gain ⁽¹⁾ | | | | — |
| (V _{CE} = 10 Vdc, I _C = 150 mAdc) | h _{FE1} | 120 | 240 | |
| (V _{CE} = 10 Vdc, I _C = 500 mAdc) | h _{FE2} | 40 | — | |
| Collector-Emitter Saturation Voltage (I _C = 300 mAdc, I _B = 30 mAdc) | V _{CE(sat)} | — | 0.6 | Vdc |
| Output Capacitance (V _{CB} = 10Vdc, I _E = 0, f = 1.0MHz) | C _{cb} | — | 15 | pF |

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.