RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

# SS8050

Silicon NPN SMD triode

1：base 2：emitter 3：collector

Small and medium-sized power amplifier ,

medium power drive and switching applications

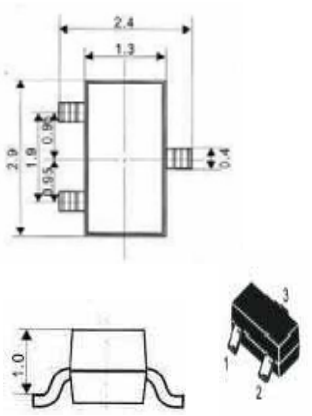
P/N suffix V means AEC-Q101 qualified, e.g:SS8050V

P/N suffix V means Halogen-free

HFE(1) :Classification

| Rank | L | H | J |
|---|---|---|---|
| Range | 120-200 | 200-350 | 300-400 |
| Marking | Y1 | | |

Ouline example SOT-23




## Maximum ratings(Ta=25℃ unless otherwise noted)

| Parameter | Symbol | Value | Unit |
|---|---|---|---|
| Collector-Base Breakdown Voltage | $V_{CBO}$ | 40 | V |
| Collector-Emitter Breakdown Voltage | $V_{CEO}$ | 25 | V |
| Emitter-Base Breakdown Voltage | $V_{EBO}$ | 5 | V |
| Collector Current | $I_C$ | 1.5 | A |
| Collector Power Dissipation | $P_C$ | 300 | mW |
| Junction Temperature | $T_J$ | 150 | ℃ |
| Storage Temperature | Tstg | −65～150 | ℃ |

## Electrical Characteristics (Ta=25℃ unless otherwise noted)

| Parameter | Symbol | Test Condition | Min | Max | Unit |
|---|---|---|---|---|---|
| Collector-Base Breakdown Voltage | $V_{CBO}$ | IC=100uA IE=0 | 40 | | V |
| Collector-Emitter Breakdown Voltage | $V_{CEO}$ | IC=1mA IB=0 | 25 | | V |
| Emitter-Base Breakdown Voltage | $V_{EBO}$ | IE=100uA IC=0 | 5 | | V |
| Collector Cutoff Current | $I_{CBO}$ | VCB=40V IE=0 | | 100 | nA |
| Collector Cutoff Current | $I_{CEO}$ | VCE=20V IB=0 | | 100 | nA |
| Emitter Cutoff Current | $I_{EBO}$ | VCE=5V IC=0 | | 100 | nA |
| DC Current Gain | $H_{FE(1)}$ | VCE=1V IC=100mA | 120 | 400 | |
| | $H_{FE(2)}$ | VCE=1V IC=800mA | 50 | | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | IC=800mA IB=80mA | | 0.5 | V |
| Collector-Base Saturation Voltage | $V_{BE(sat)}$ | IC=800mA IB=80mA | | 1.2 | V |
| transition frequency | $f_T$ | VCE=10V IC=50mA f=30MHz | 100 | | MHz |

# PACKAGING OF DIODE

REEL PACK

| PACKAGE | PACKING CODE | REEL ( EA ) | COMPONENT SPACE(mm) | TAPE SPACE (mm) | REEL DIA (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|---|---|---|---|---|---|---|---|---|
| SOT-23/-3L | -T | 3,000 | --- | --- | 178 | 440*440*240 | 180,000 | 8.0 |

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