

TOSHIBA

2SC5261

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL PLANAR TYPE

2SC5261

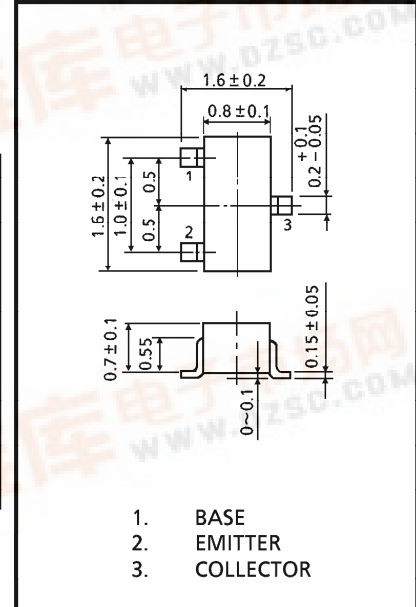
VHF~UHF BAND LOW NOISE AMPLIFIER APPLICATIONS

Unit in mm

- Low Noise Figure : NF=1.7dB (f=2GHz)
- High Gain : Gain=8.5dB (f=2GHz)

MAXIMUM RATINGS (Ta = 25°C)

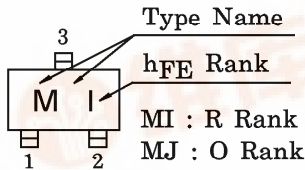
| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|-----------------------------|------------------|---------|------|
| Collector-Base Voltage | V _{CBO} | 15 | V |
| Collector-Emitter Voltage | V _{CEO} | 7 | V |
| Emitter-Base Voltage | V _{EBO} | 1.5 | V |
| Collector Current | I _C | 15 | mA |
| Base Current | I _B | 7 | mA |
| Collector Power Dissipation | P _C | 100 | mW |
| Junction Temperature | T _j | 125 | °C |
| Storage Temperature Range | T _{stg} | -55~125 | °C |



| | |
|---------|--------|
| JEDEC | — |
| EIAJ | — |
| TOSHIBA | 2-2H1A |

Weight : 2.4mg

MARKING



MICROWAVE CHARACTERISTICS (Ta = 25°C)

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|----------------------|-------------------------------------|--|------|------|------|------|
| Transition Frequency | f _T | V _{CE} =5V, I _C =7mA | 9 | 12 | — | GHz |
| Insertion Gain | S _{21e} ² (1) | V _{CE} =5V, I _C =7mA, f=1GHz | 11.5 | 14.5 | — | dB |
| | S _{21e} ² (2) | V _{CE} =5V, I _C =7mA, f=2GHz | 5.5 | 8.5 | — | |
| Noise Figure | NF (1) | V _{CE} =5V, I _C =3mA, f=1GHz | — | 1.3 | — | dB |
| | NF (2) | V _{CE} =5V, I _C =3mA, f=2GHz | — | 1.7 | 3 | |

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|------------------------------|-----------------------------|--|------|------|------|------|
| Collector Cut-off Current | I _{CBO} | V _{CB} =10V, I _E =0 | — | — | 1 | μA |
| Emitter Cut-off Current | I _{EBO} | V _{EB} =1V, I _C =0 | — | — | 1 | μA |
| DC Current Gain | h _{FE} (Note 1) | V _{CE} =5V, I _C =7mA | 50 | — | 160 | — |
| Output Capacitance | C _{ob} | V _{CB} =5V, I _E =0, f=1MHz (Note 2) | — | 0.4 | — | pF |
| Reverse Transfer Capacitance | C _{re} | | — | 0.3 | — | pF |

(Note 1) : h_{FE} Classification R : 50~100, O : 80~160

(Note 2) : C_{re} is measured by 3 terminal method with capacitance bridge.

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