



2SC3356

NPN SILICON TRANSISTOR

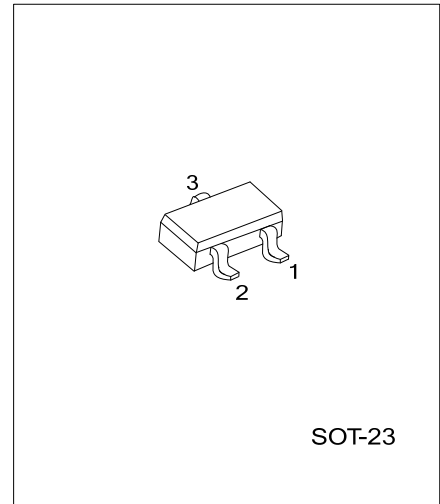
HIGH FREQUENCY LOW NOISE AMPLIFIER

DESCRIPTION

The UTC **2SC3356** is designed for such applications as: DC/DC converters, supply line switching, battery charger, LCD backlighting, peripheral drivers, Driver in low supply voltage applications (e.g. lamps and LEDs) and inductive load driver (e.g. relays, buzzers and motors).

FEATURES

- * Low Noise and High Gain
- * High Power Gain

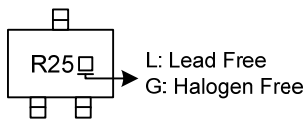


ORDERING INFORMATION

| Ordering Number | | | Package | Pin Description | | | Packing |
|-----------------|-------------------|------------------|---------|-----------------|---|---|-----------|
| Normal | Lead Free Plating | Halogen Free | | 1 | 2 | 3 | |
| 2SC3356-x-AE3-R | 2SC3356L-x-AE3-R | 2SC3356G-x-AE3-R | SOT-23 | E | B | C | Tape Reel |

| | |
|--|--|
| <p>2SC3356L-x-AE3-R</p> <p>(1) Packing Type (2) Package Type (3) Rank (4) Lead Plating</p> | <p>(1) R: Tape Reel (2) AE3: SOT-23 (3) x: refer to Classification of h_{FE} (4) G: Halogen Free, L: Lead Free, Blank: Pb/Sn</p> |
|--|--|

MARKING



■ ABSOLUTE MAXIMUM RATING

| PARAMETER | SYMBOL | RATINGS | UNIT |
|------------------------------|------------|-----------|------|
| Collector to Base Voltage | BV_{CBO} | 20 | V |
| Collector to Emitter Voltage | BV_{CEO} | 12 | V |
| Emitter to Base Voltage | BV_{EBO} | 3 | V |
| Collector Current | I_C | 100 | mA |
| Power Dissipation | P_D | 200 | mW |
| Junction Temperature | T_J | 150 | °C |
| Storage Temperature | T_{STG} | -65~ +150 | °C |

Notes: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$, unless otherwise specified)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|--------------------------------|-----------|---|-----|-----|-----|---------------|
| Collector-Base Cut-Off Current | I_{CBO} | $V_{CB}=10\text{ V}, I_E=0$ | | | 1.0 | μA |
| Emitter-Base Cut-Off Current | I_{EBO} | $V_{EB}=1\text{ V}, I_C=0$ | | | 1.0 | μA |
| DC Current Gain | h_{FE} | $V_{CE}=10\text{ V}, I_C=20\text{ mA}$ | 50 | | 300 | |
| Gain Bandwidth Product | f_T | $V_{CE}=10\text{ V}, I_C=20\text{ mA}$ | | 7 | | GHz |
| Feed-Back Capacitance | C_{RE} | $V_{CB}=10\text{ V}, I_E=0, f=1.0\text{MHz}$ | | | 1.0 | pF |
| Noise Figure | NF | $V_{CE}=10\text{ V}, I_C=7\text{mA}, f=1.0\text{GHz}$ | | | 2.0 | dB |

■ CLASSIFICATION OF h_{FE}

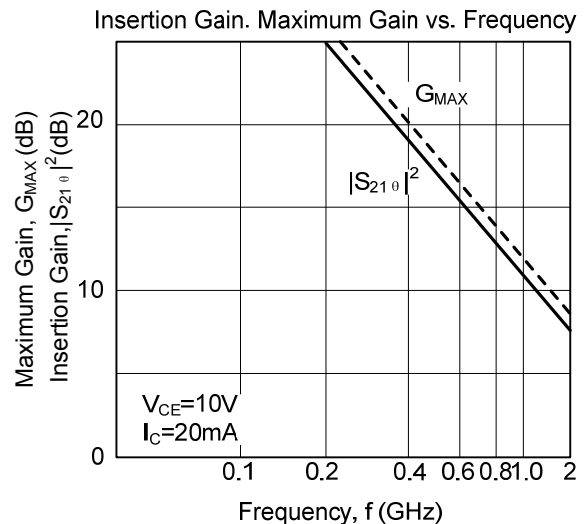
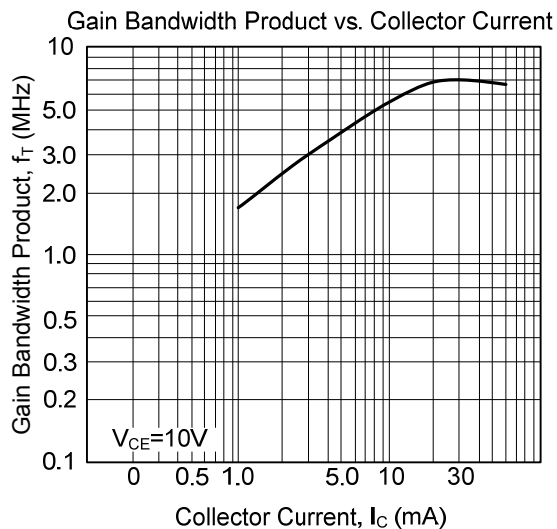
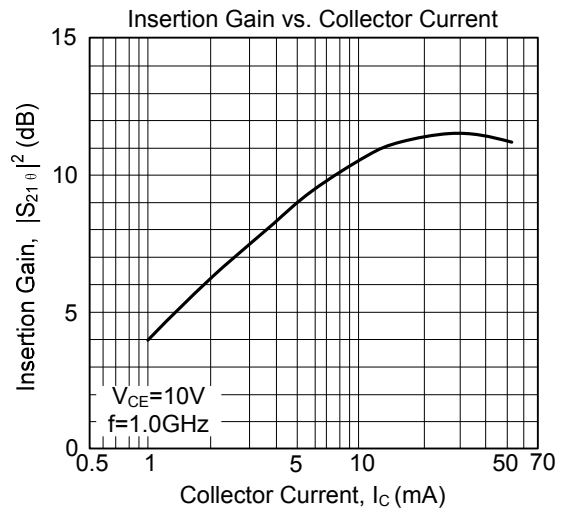
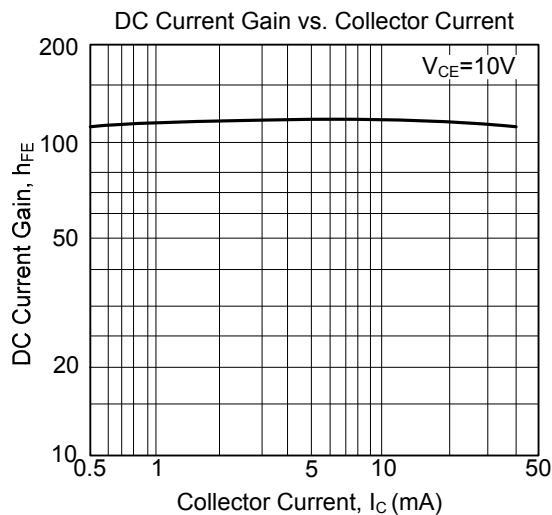
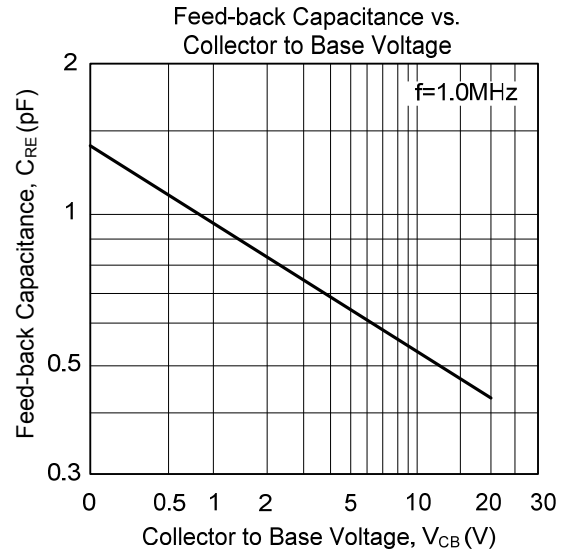
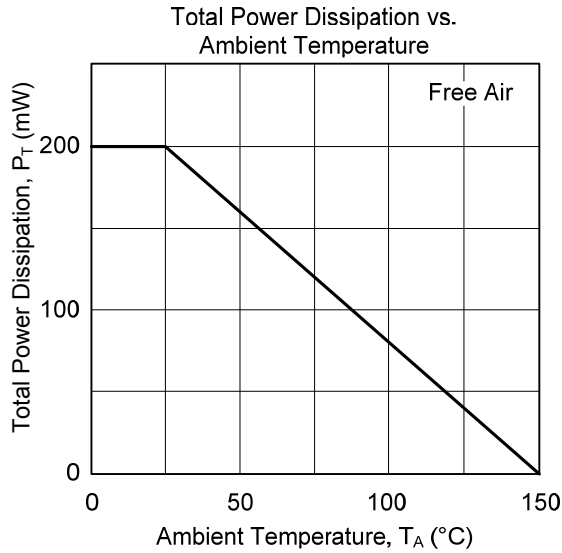
| RANK | A | B | C |
|-------|--------|---------|---------|
| RANGE | 50-160 | 160-240 | 240-300 |



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TYPICAL CHARACTERISTICS

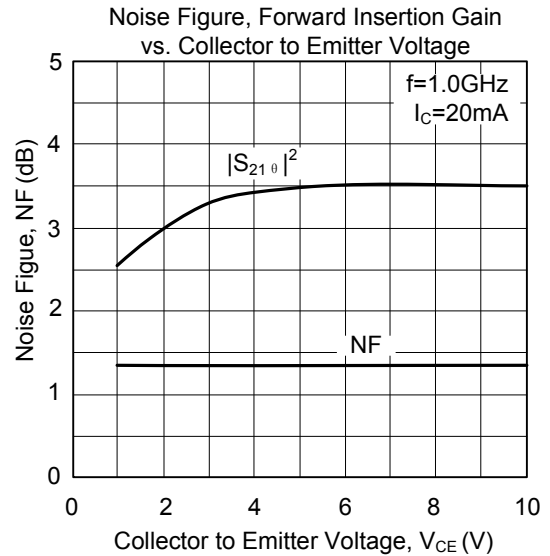
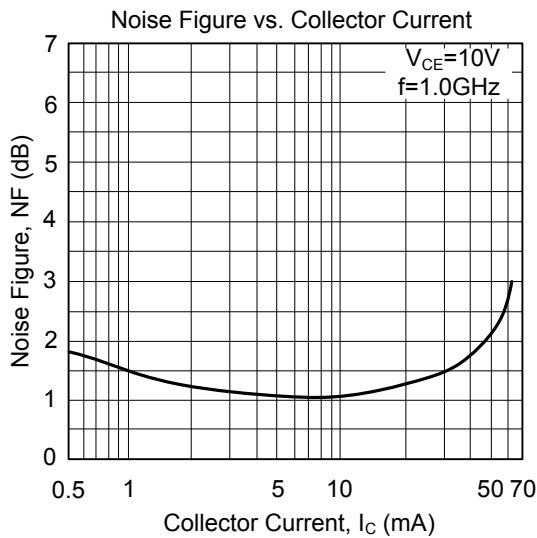




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■ TYPICAL CHARACTERISTICS(Cont.)



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