

UNISONIC TECHNOLOGIES CO., LTD

2SC3357

NPN SILICON TRANSISTOR

NPN EPITAXIAL SILICON RF TRANSISTOR **HIGH-FREQUENCY LOW-NOISE AMPLIFICATION POWER MINI** MOLD

SOT-89

DESCRIPTION

The UTC 2SC3357 is an NPN silicon epitaxial transistor designed for low noise amplifier at VHF, UHF and CATV band. It has large dynamic range and good current characteristic.

ORDERING INFORMATION

| Order Number | | Dookago | Pin Assignment | | | Deaking |
|---|---|---------|----------------|---|---|-----------|
| Lead Free | Halogen Free | Package | 1 | 2 | 3 | Packing |
| 2SC3357L-xx-AB3-R | 2SC3357G-xx-AB3-R | SOT-89 | В | С | Е | Tape Reel |
| Note: Pin Assignment: B: Base C: Collector E: Emitter | | | | | | |
| 2SC3357 <u>G-xx-AB3-</u> R | (1) R: Tape Reel (2) AB3: SOT-89 (3) xx: refer to Classification of h_{FE} (4) G: Halogen Free and Lead Free, L: Lead Free | | | | | |

MARKING



■ ABSOLUATE MAXIUM RATINGS (T_A= 25°C, unless otherwise specified)

| PARAMETER | SYMBOL | RATINGS | UNIT |
|------------------------------|------------------|------------|------|
| Collector to Base Voltage | V _{CBO} | 20 | V |
| Collector to Emitter Voltage | V _{CEO} | 12 | V |
| Emitter to Base Voltage | V _{EBO} | 3 | V |
| Collector Current | Ic | 100 | mA |
| Collector Dissipation | Pc | 1.2 | W |
| Junction Temperature | TJ | +150 | °C |
| Storage Temperature | T _{STG} | -40 ~ +150 | °C |

Note: 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 (TJ=25°C, unless otherwise specified)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|---------------------------|------------------|---|-----|-----|-----|------|
| Collector Cut-off Current | I _{CBO} | V _{CE} =10V, I _E =0 | | | 1 | μA |
| Emitter Cutoff Current | I _{EBO} | $V_{CE}=1V, I_{C}=0$ | | | 1 | μA |
| DC Current Gain | h _{FE} | V _{CE} =10V, I _C =20mA | 50 | | 300 | |
| Transition Frequency | f⊤ | V _{CE} =10V, I _C =20mA | | 6.5 | | GHz |
| Feedback Capacitance | C _{re} | V _{CE} =10V, I _E =0, f=1MHz | | | 10 | pF |

Note: Pulsed: $P_W \le 350\mu s$, Duty Cycle $\le 2\%$.

CLASSIFICATION OF h_{FE}

| RANK | RH | RF | RE |
|-------|----------|----------|-----------|
| RANGE | 50 ~ 100 | 80 ~ 160 | 125 ~ 250 |



2SC3357

TYPICAL CHARACTERISTICS





UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. UTC reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.

