



## 2SC3356

## NPN SILICON TRANSISTOR

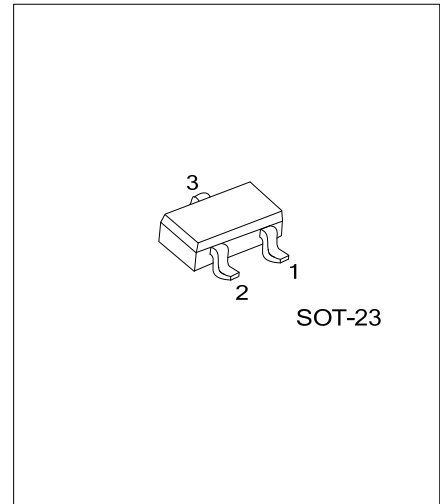
### HIGH FREQUENCY LOW NOISE AMPLIFIER

#### 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

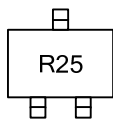


#### ORDERING INFORMATION

Ordering Number	Package	Pin Description			Packing
		1	2	3	
Lead Free					
2SC3356L-x-AE3-R	SOT-23	E	B	C	Tape Reel

<p>2SC3356L-x-AE3-R</p> <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Rank</p> <p>(4) Lead Free</p>	<p>(1) R: Tape Reel</p> <p>(2) AE3: SOT-23</p> <p>(3) x: refer to Classification of hFE</p> <p>(4) L: Lead Free</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.

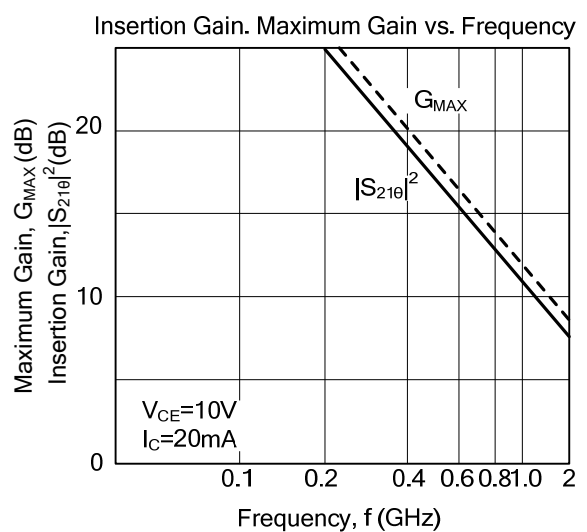
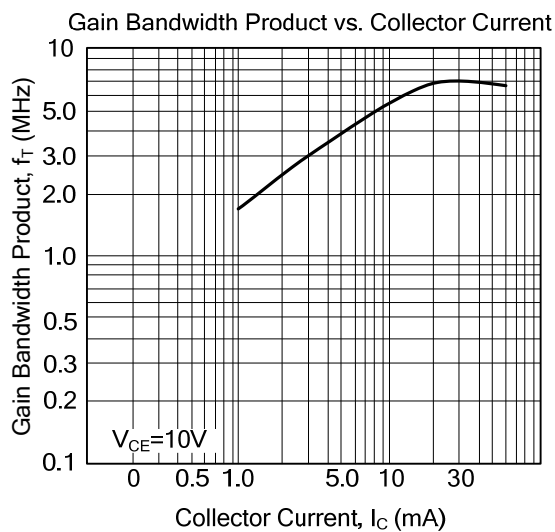
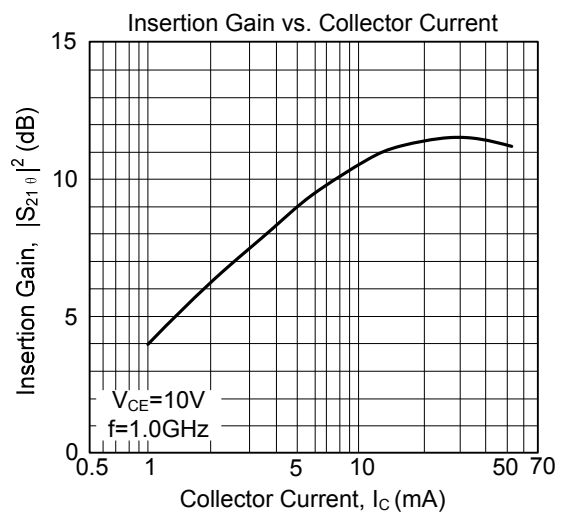
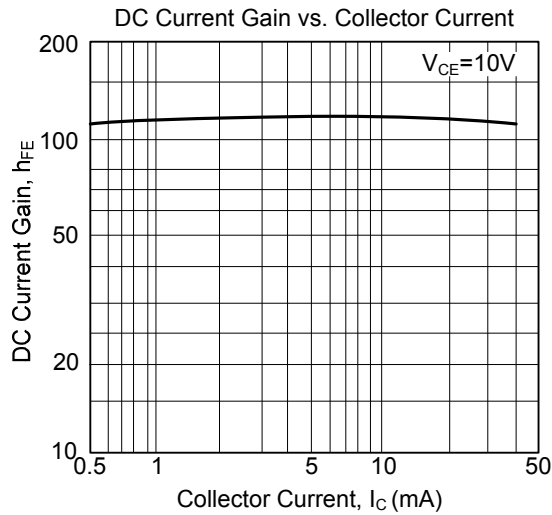
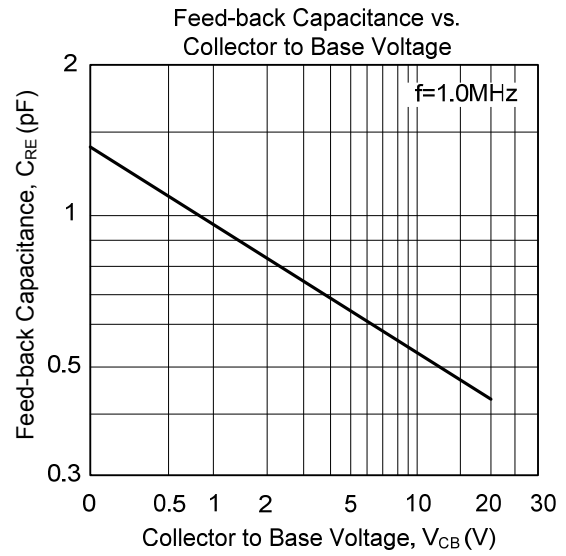
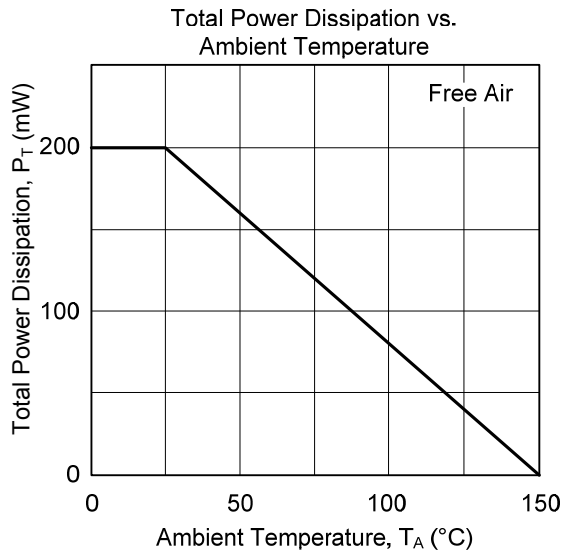
■ ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ , unless otherwise specified)

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	$\mu\text{A}$
Emitter-Base Cut-Off Current	$I_{EBO}$	$V_{EB}=1\text{V}, I_C=0$			1.0	$\mu\text{A}$
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

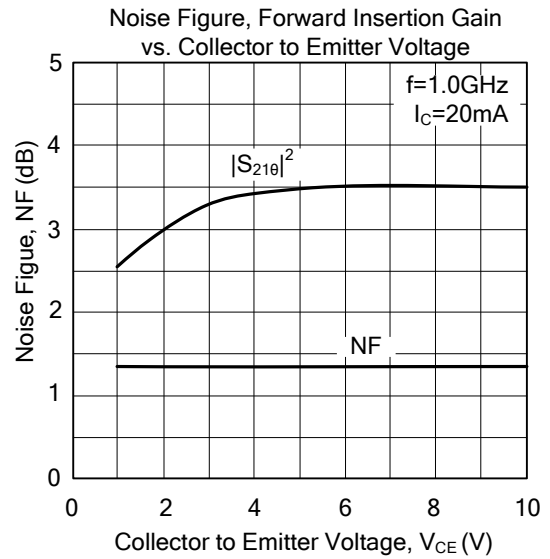
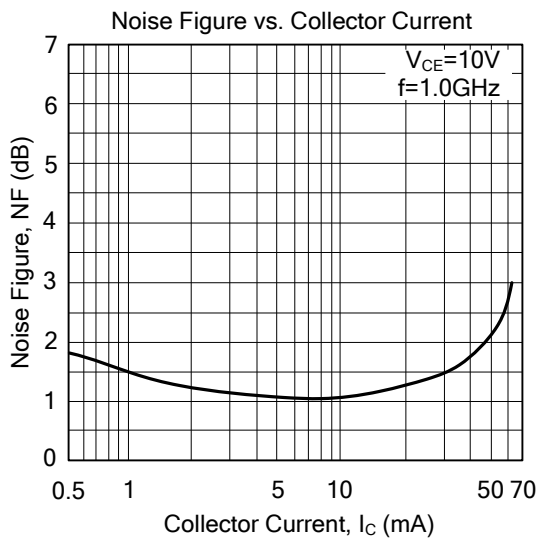
■ CLASSIFICATION OF  $h_{FE}$

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

## TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



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. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.