



## 2SC3356

## NPN SILICON TRANSISTOR

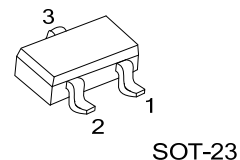
### HIGH FREQUENCY LOW NOISE AMPLIFIER

#### 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

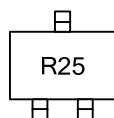


#### ORDERING INFORMATION

Ordering Number	Package	Pin Description			Packing
		1	2	3	
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 h<sub>FE</sub></p> <p>(4) L: Lead Free</p>
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#### 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.

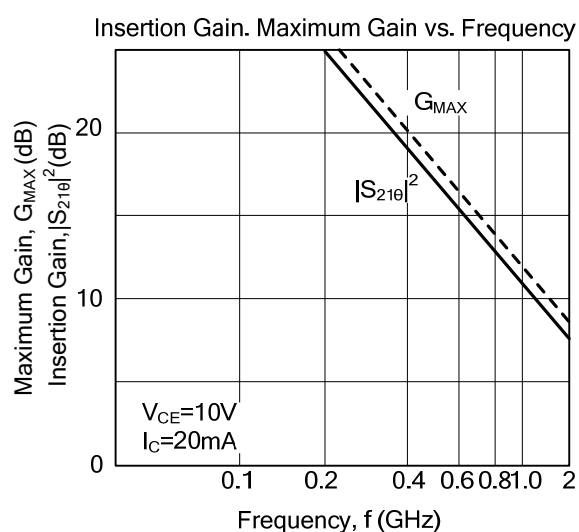
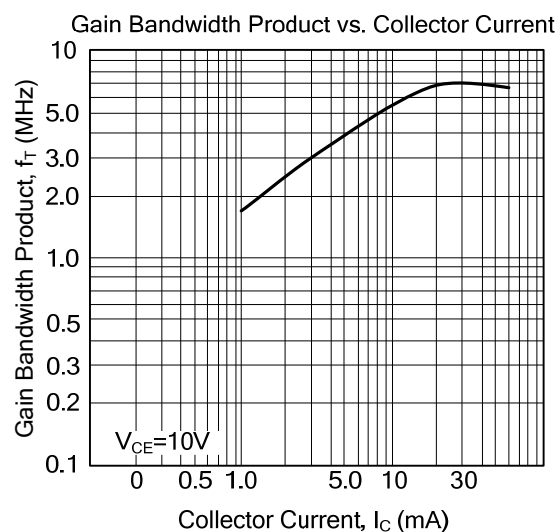
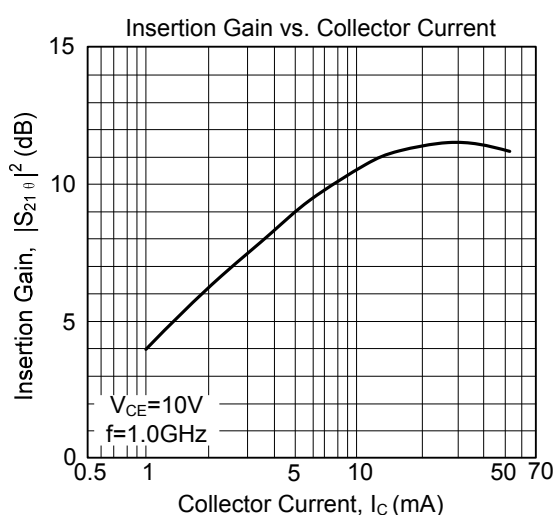
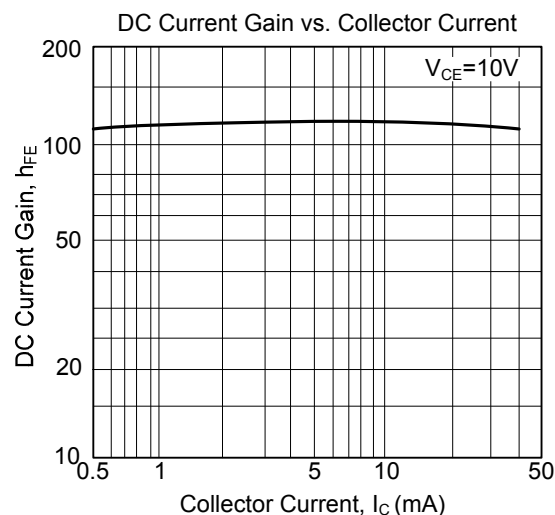
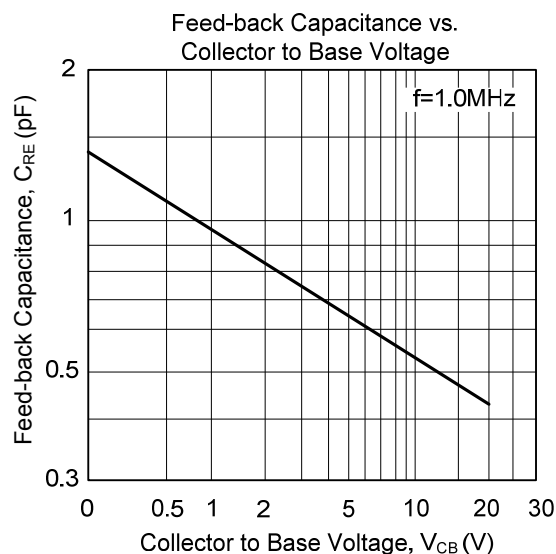
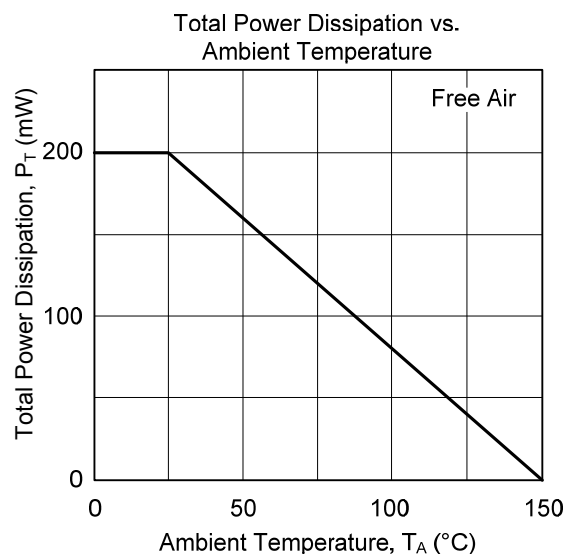
# ■ ELECTRICAL CHARACTERISTICS ( $T_a=25^{\circ}\text{C}$ , unless otherwise specified)

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

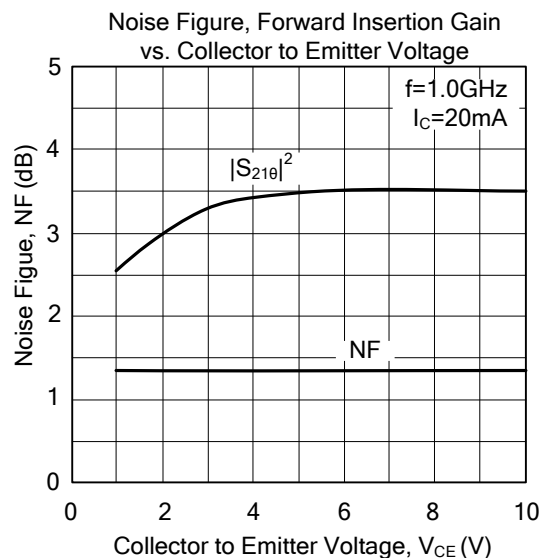
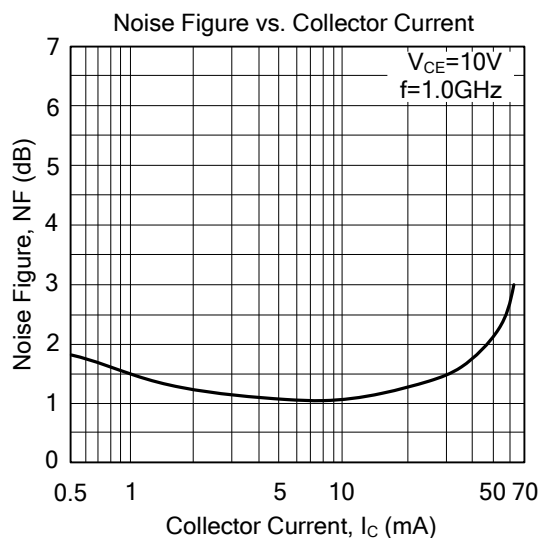
# ■ CLASSIFICATION OF $h_{FE}$

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

# TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



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