



2SC3356

NPN SILICON TRANSISTOR

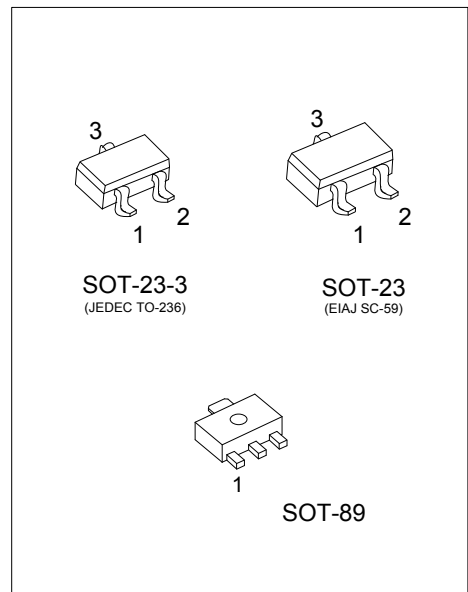
HIGH FREQUENCY LOW NOISE AMPLIFIER

■ 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
Lead Free	Halogen Free		1	2	3	
2SC3356L-x-AE2-R	2SC3356G-x-AE2-R	SOT-23-3	B	E	C	Tape Reel
2SC3356L-x-AE3-R	2SC3356G-x-AE3-R	SOT-23	B	E	C	Tape Reel
2SC3356L-x-AB3-R	2SC3356G-x-AB3-R	SOT-89	B	C	E	Tape Reel

Note: Pin Assignment: B: Base E: Emitter C: Collector

<p>2SC3356G-x-AE2-R</p> <p>(1) Packing Type (2) Package Type (3) Rank (4) Green Package</p>	<p>(1) R: Tape Reel (2) AE2: SOT-23-3, AE3: SOT-23 (3) x: refer to Classification of h_{FE} (4) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ MARKING

SOT-23-3/SOT-23		SOT-89
2SC3356L	2SC3356G	



■ 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	SOT-23-3	P_D	200	mW
	SOT-23			
	SOT-89		500	mW
Junction Temperature		T_J	+150	°C
Storage Temperature		T_{STG}	-65 ~ +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.

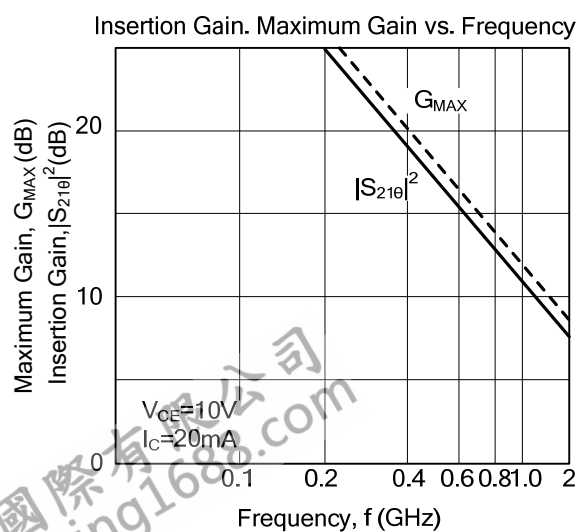
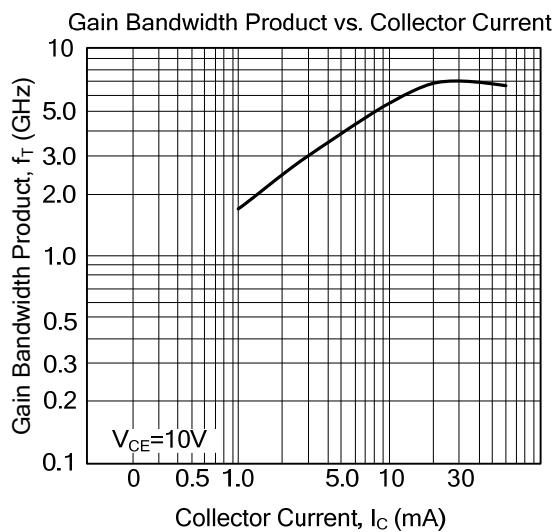
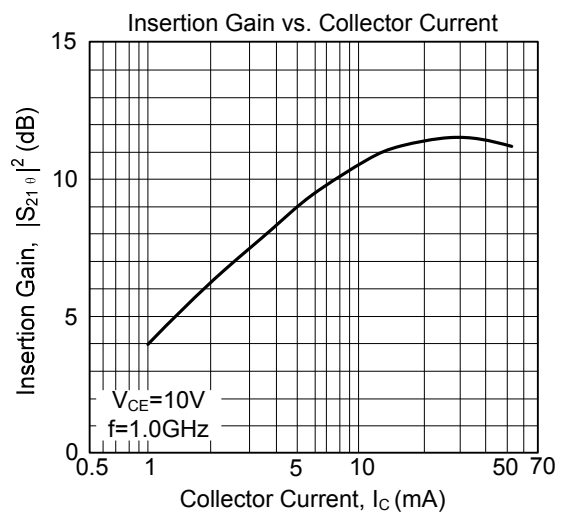
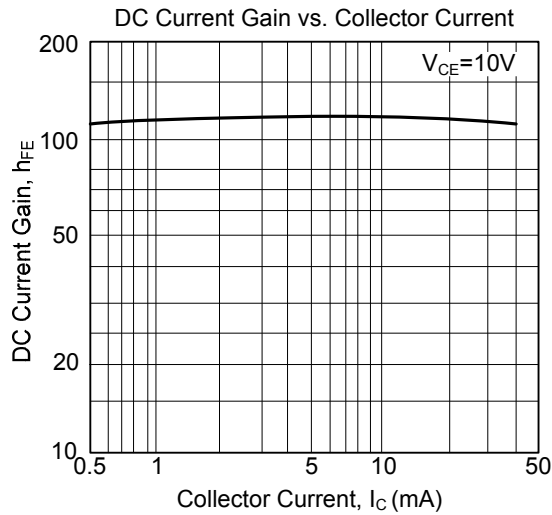
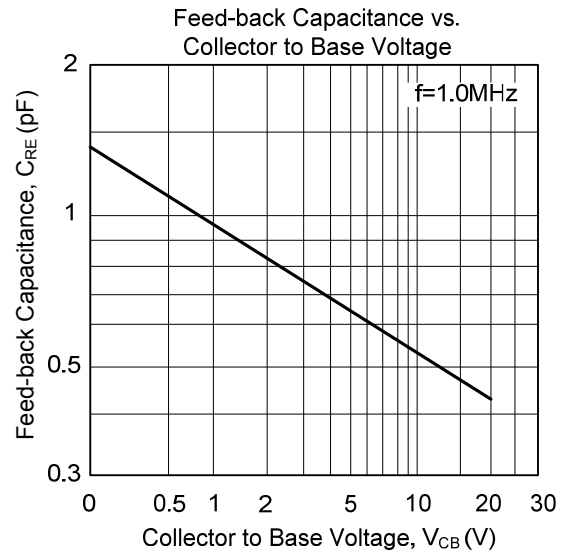
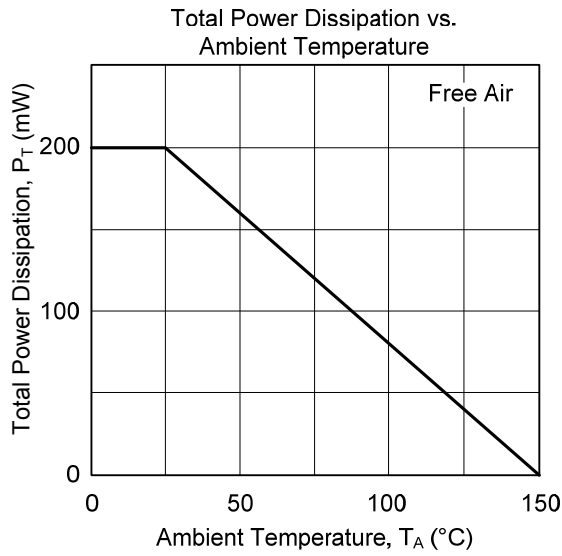
■ ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector to Base Breakdown Voltage	BV_{CBO}	$I_C=10\mu\text{A}, I_E=0$	20			V
Collector to Emitter Breakdown Voltage	BV_{CEO}	$I_C=1\text{mA}, R_{BE}=\infty$	12			V
Emitter to Base Breakdown Voltage	BV_{EBO}	$I_E=10\mu\text{A}, I_C=0$	3			V
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

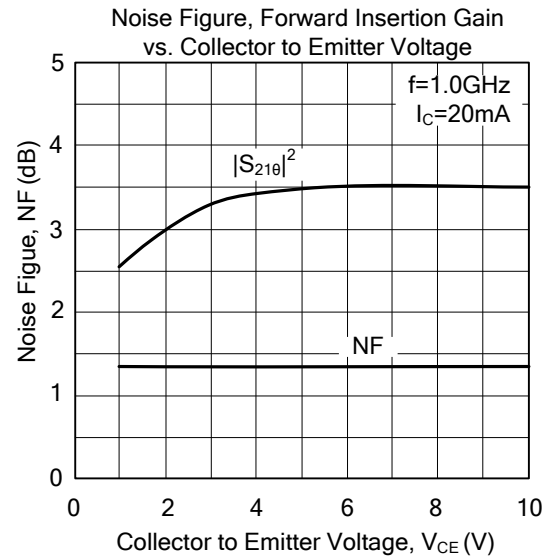
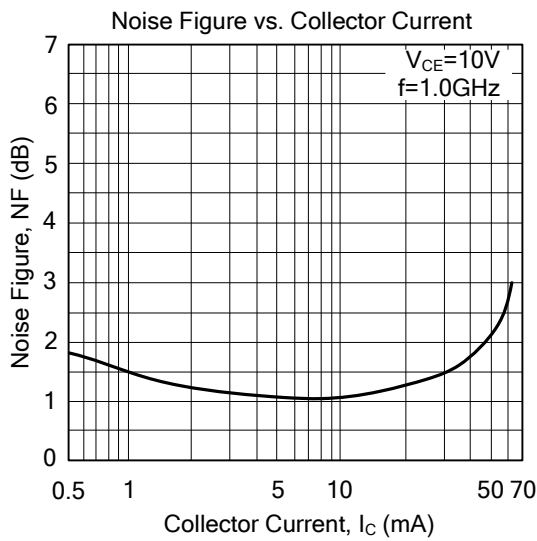
■ CLASSIFICATION OF h_{FE}

RANK	A	B
RANGE	50-170	160-300

TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS (Cont.)



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