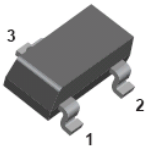
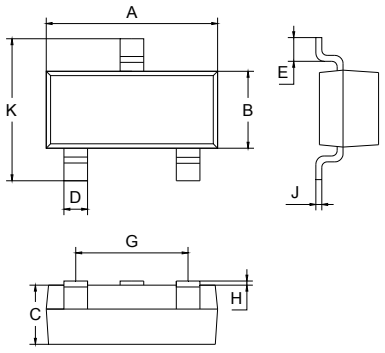
2SC3356

Silicon Epitaxial Planar Transistor

RoHS COMPLIANT





SOT-23

SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	1.0 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.80	2.00
H	0.02	0.1
J	0.1 Typical	
K	2.20	2.60
All Dimensions in mm		

FEATURES

- Low noise and high gain.
  NF=1.1dB TYP.,G_a=11dB TYP.
  @V_{CE}=10V,I_C=7mA, f=1.0GHz
- High power gain. MAG=13dB TYP.
  @V_{CE}=10V,I_C=20mA,f=1.0GHz.

APPLICATIONS

- Designed for low noise amplifier at VHF,UHF and CATV band.

ORDERING INFORMATION

Type No.	Marking	Package Code
2SC3356	R23/R24/R25	SOT-23

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	20	V
V_{CEO}	Collector-Emitter Voltage	12	V
V_{EBO}	Emitter-Base Voltage	3	V
I_C	Collector Current -Continuous	100	mA
P_C	Collector Dissipation	200	mW
T_j,T_{stg}	Junction and Storage Temperature	-65 to +150	℃

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=10μA,I_E=0	20			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	12			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=10μA,I_C=0	3			V
Collector cut-off current	I_{CBO}	V_{CB}=10V,I_E=0			1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=1V,I_C=0			1	μA
DC current gain	h_{FE}	V_{CE}=10V,I_C=20mA	50	120	300	
Transition frequency	f_T	V_{CE}=10V,I_C= 20mA		7		GHz
Insertion power gain	$\|S_{21e}\|^2$	V_{CE}=10V, I_C= 20mA , f=1GHz		11.5		dB
Feed-back capacitance	C_{re}	V_{CB}=10V, I_E=0,f=1MHz		0.55	1.0	pF
Noise Figure	NF	V_{CE}=10V,I_C=7mA, f=1GHz		1.1	2.0	dB

CLASSIFICATION OF h_{FE}

Rank	Q	R	S
Range	50-100	80-160	125-250
Marking	R23	R24	R25

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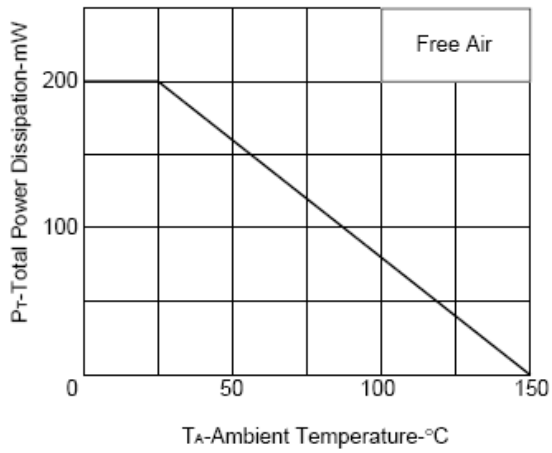
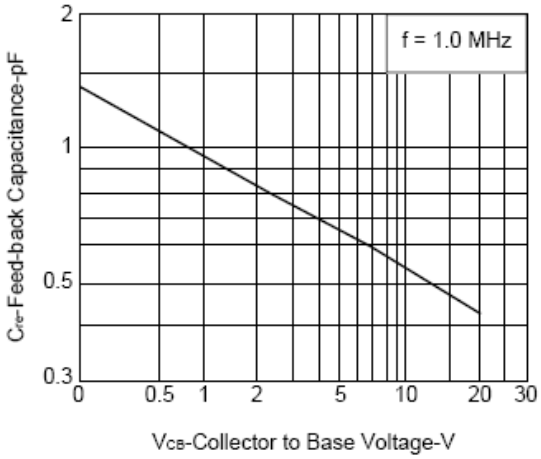
TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

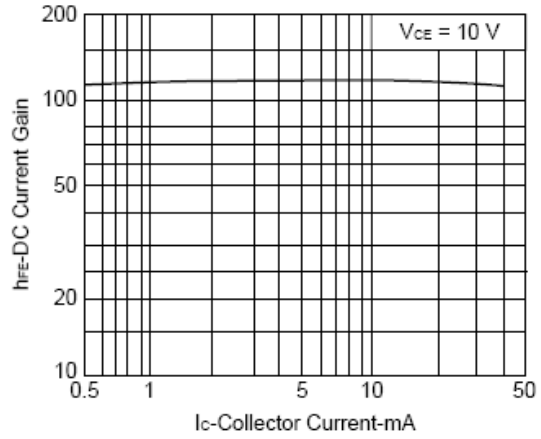
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



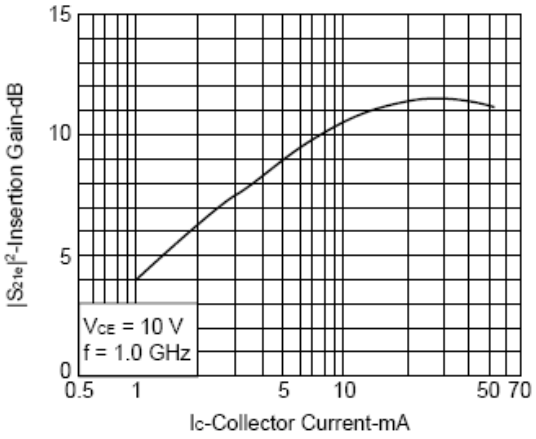
FEED-BACK CAPACITANCE vs. COLLECTOR TO BASE VOLTAGE



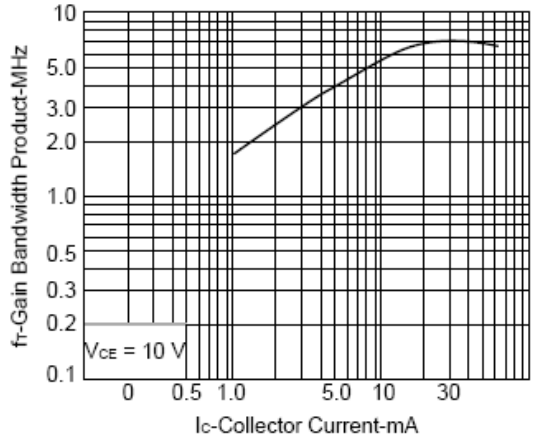
DC CURRENT GAIN vs. COLLECTOR CURRENT



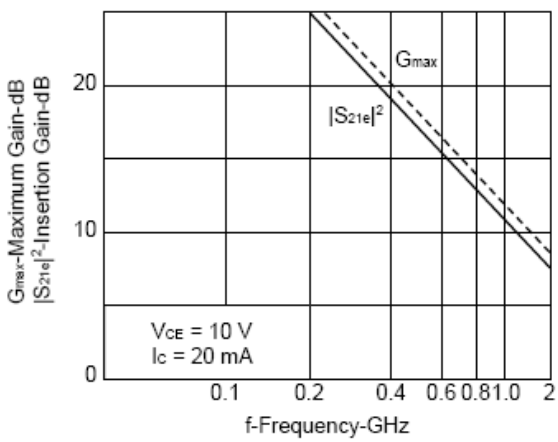
INSERTION GAIN vs. COLLECTOR CURRENT



GAIN BANDWIDTH PRODUCT vs. COLLECTOR CURRENT



INSERTION GAIN, MAXIMUM GAIN vs. FREQUENCY



Device	Package	Shipping
2SC3356	SOT-23	3000/Tape&Reel