

FEATURES

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

APPLICATIONS

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

2SC3356



MAXIMUM RATING @ $T_a=25^\circ\text{C}$ 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	-65~150	$^\circ\text{C}$

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TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
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	125-300
Marking	R23	R24	R25

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