



DESCRIPTION

The A3356 is an NPN silicon Epitaxial Transistor. It has low noise and high power gain

The A3356 is available in SOT-23 package.

FEATURES

- Low noise
- Collector Current:100mA (Max)
- High Frequency: 5.0GHz (Typ)
- Collector-Emitter Voltage: 12V
- Available in SOT-23 Package

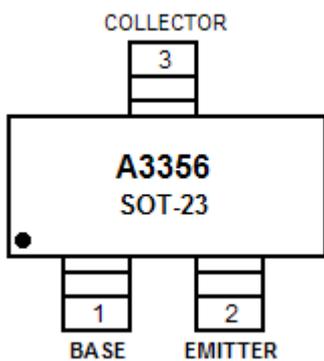
ORDERING INFORMATION

Package Type	Part Number	
SOT-23	E3	A3356E3R-XXX
		A3356E3VR-XXX
Note	XXX: Ranking R24 or R25 R: Tape & Reel V: Green Package	
AiT provides all Pb free products Suffix " V " means Green Package		

APPLICATION

- VHF
- UHF
- CATV

PIN DESCRIPTION



Top View

Pin #	Function
1	Base
2	Emitter
3	Collector

hFE CLASSIFICATION

Rank	R24/Q	R25/Q
hFE Value	50-160	125-250



ABSOLUTE MAXIMUM RATING

(T=25°C)

Symbol	Parameter	Limit	Unit
V _{CB0}	Collector-Base Voltage	20	V
V _{CEO}	Collector-Emitter Voltage	12	V
V _{EBO}	Emitter-Base Voltage	3	V
I _C	Collector Current	100	mA
P _C	Collector Power Dissipation	0.2	W
T _J	Junction Temperature	150	°C
T _{STG}	Storage Temperature	-65 ~ +150	°C

ELECTRICAL CHARACTERISTICS

(T=25°C)

Symbol	Parameter	Condition	Min	Typ	Max	Unit
BV _{CB0}	Collector-Base Breakdown Voltage	I _C =10uA	20			V
BV _{CEO}	Collector-Emitter Breakdown Voltage	I _C =1mA	12			V
BV _{EBO}	Emitter-Base Breakdown Voltage	I _E =10uA	3			V
I _{CB0}	Collector Cutoff Current	V _{CB} =10V			1	uA
I _{EBO}	Emitter Cutoff Current	V _{EB} =1V			1	uA
H _{FE} (Note 1)	DC Current Transfer Ratio	V _{CE} =10V, I _C =20mA	50	120	250	
RF Characteristics						
F _T	Transition Frequency	V _{CE} =10V, I _C =20mA		5.0		GHz
C _{RE} (Note 2)	Reverse Transfer Capacitance	V _{CB} =10V, I _E =0A, F=1MHz		0.65	1.0	pF
S _{21e} ²	Insertion Power Gain	V _{CE} =10V, I _E =20mA, F=1GHz		11.5		dB
NF	Noise Factor	V _{CE} =10V, I _C =7mA, F=1GHz		1.1	2.0	dB

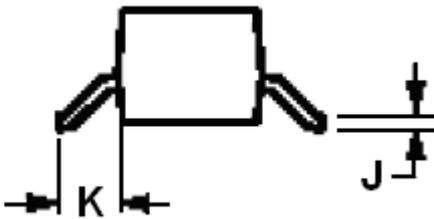
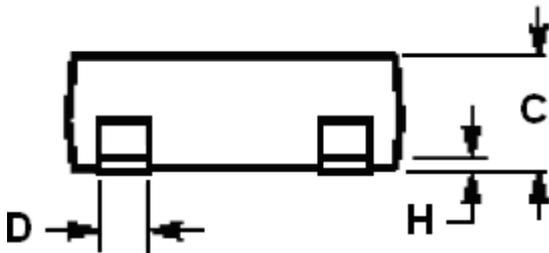
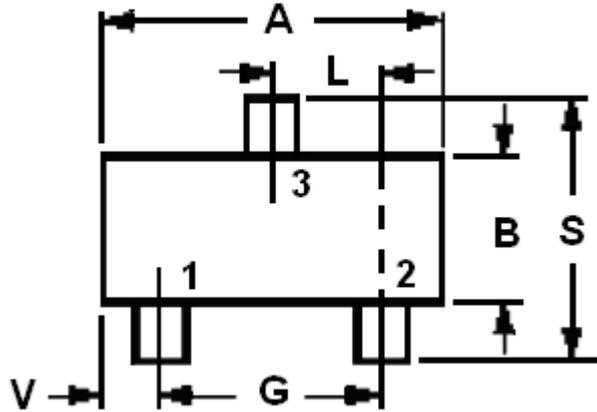
Note 1: Pulse measurement PW < 350us, Duty Cycle < 2%.

Note 2: Collector to base capacitance when the emitter grounded.



PACKAGE INFORMATION

Dimension in SOT-23 Package (Unit: mm)



Symbol	Min	Max
A	2.80	3.04
B	1.20	1.40
C	0.89	1.11
D	0.37	0.50
G	1.78	2.04
H	0.013	0.100
J	0.085	0.177
K	0.35	0.69
L	0.89	1.02
S	2.10	2.64
V	0.45	0.60



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