Leading Circuit Protection
Products and Solutions

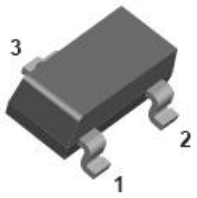
S9015
Silicon Epitaxial Planar Transistor

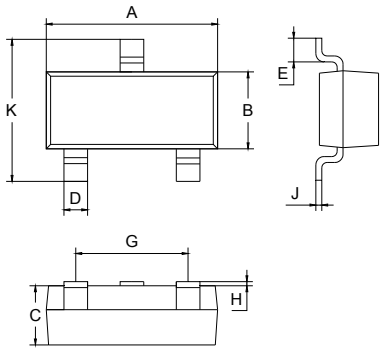
FEATURES

- Complementary To S9014.
- Excellent H_{FE} Linearity.
- Power dissipation.(P_C=0.2W).

APPLICATIONS

- Low frequency , low noise amplifier.





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		

ORDERING INFORMATION

Type No.	Marking	Package Code
S9015	M6	SOT-23

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-45	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-100	mA
P_C	Collector Dissipation	200	mW
T_j,T_{stg}	Junction and Storage Temperature	-55 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= -100μA,I_E=0	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C= -0.1mA,I_B=0	-45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= -100μA,I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}= -50V,I_E=0			-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}= -5V,I_C=0			-0.1	μA
DC current gain	h_{FE}	V_{CE}= -5V,I_C= -1mA	200		1000	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C= -100mA, I_B= -10mA			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C= -100mA, I_B= -10mA			-1	V
Transition frequency	f_T	V_{CE}= -5V, I_C= -10mA f=30MHz	100			MHz

CLASSIFICATION OF $h_{FE(1)}$

Rank	L	H
Range	200-450	450-1000

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

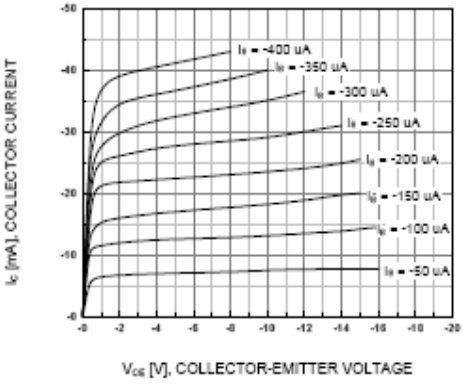


Figure 1. Static Characteristic

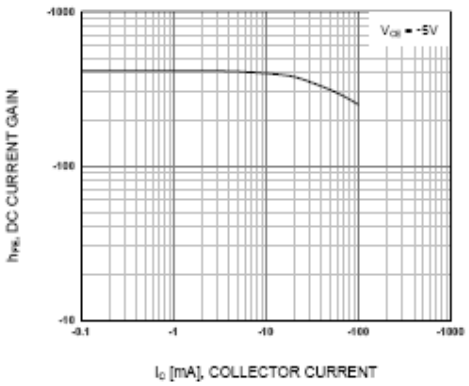


Figure 2. DC current Gain

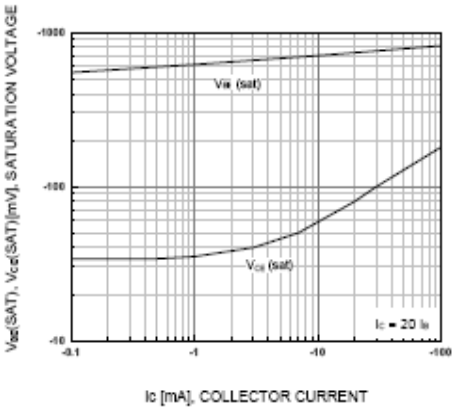


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

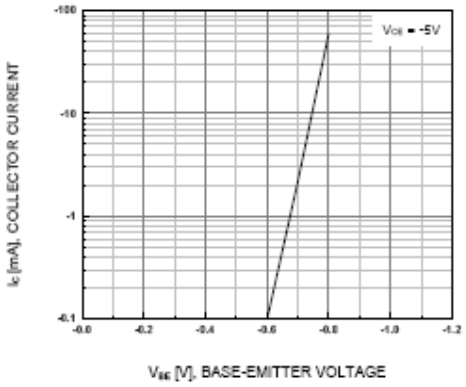


Figure 4. Base-Emitter On Voltage

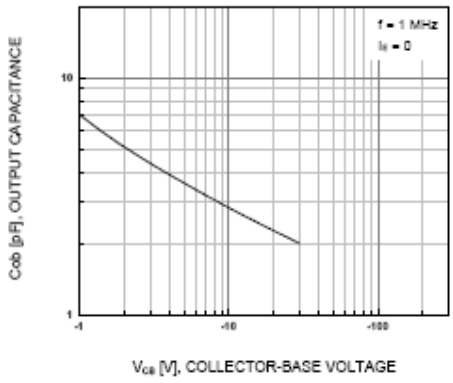


Figure 5. Collector Output Capacitance

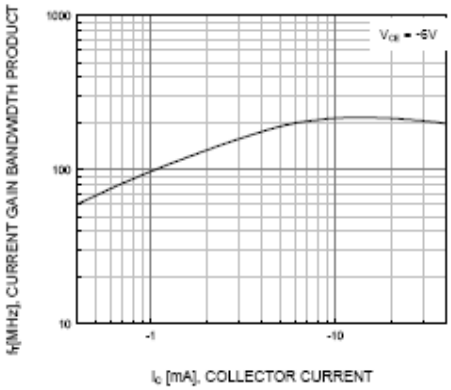


Figure 6. Current Gian Bandwidth Product

Device	Package	Shipping
S9015	SOT-23	3000/Tape&Reel