

Silicon Epitaxial Planar Transistor

2SA1015

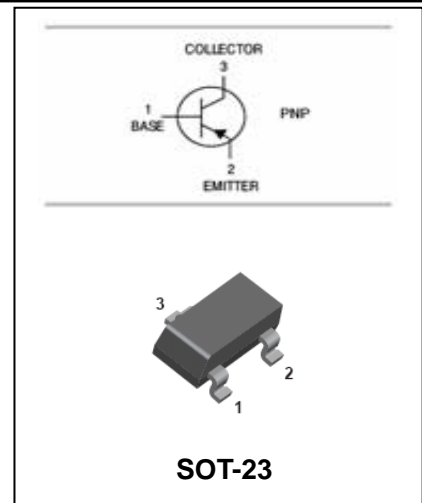
FEATURES

- Complementary To 2SC1815.
- Excellent H_{FE} Linearity.
- High voltage and high current.
- Low noise.
- Collector-Emitter voltage $BV_{CEO} = -50V$.



APPLICATIONS

- Low frequency , low noise amplifier.



ORDERING INFORMATION

Type No.	Marking	Package Code
2SA1015	BA	SOT-23

MAXIMUM RATING @ $T_a = 25^\circ C$ unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-150	mA
P_C	Collector Dissipation	400	mW
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	$^\circ C$



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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -0.1mA, I_B = 0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -50V, I_E = 0$			-0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = -50V, I_B = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE} = -6V, I_C = -2mA$	70		400	
		$V_{CE} = -6V, I_C = -150mA$	25	80		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100mA, I_B = -10mA$		-0.1	-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -100mA, I_B = -10mA$			-1.1	V
Transition frequency	f_T	$V_{CE} = -10V, I_C = -1mA$ $f = 30MHz$	80			MHz

CLASSIFICATION OF $h_{FE(1)}$

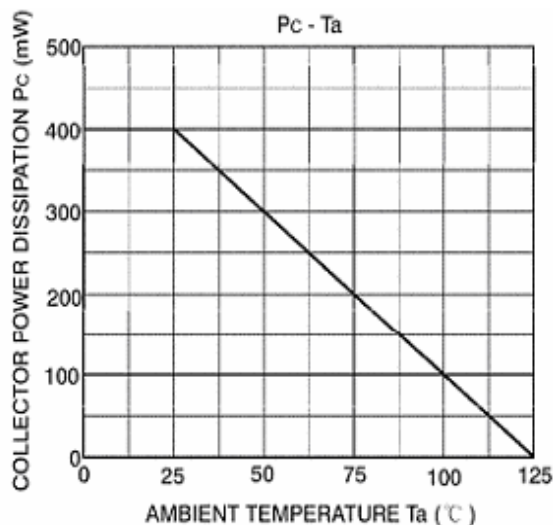
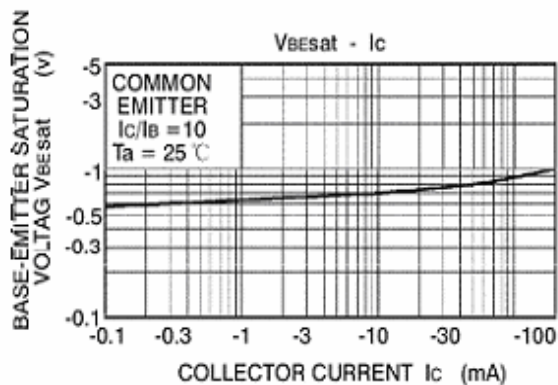
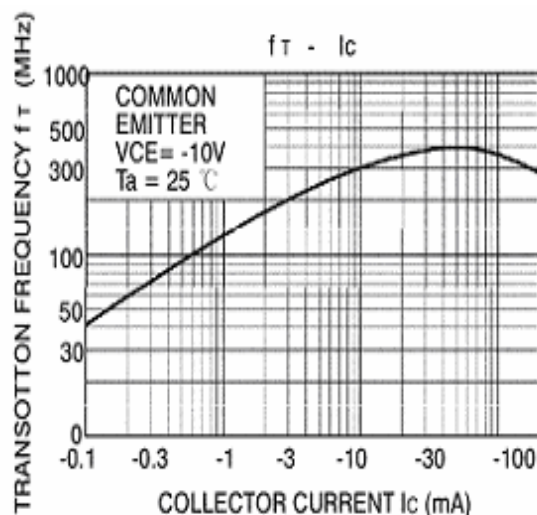
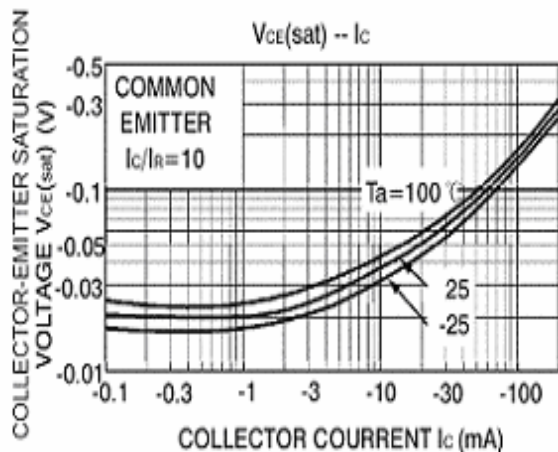
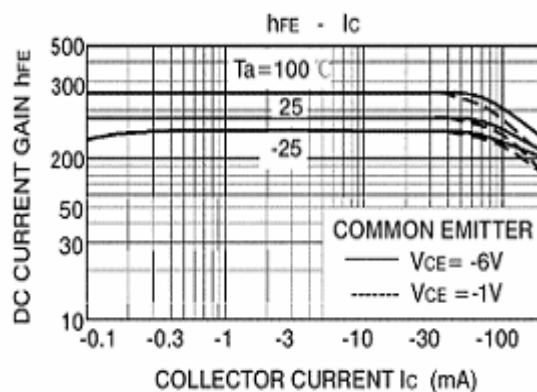
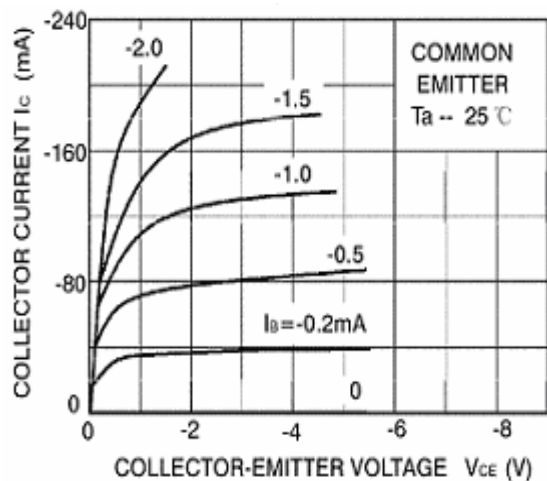
Rank	L	H
Range	130-200	200-400



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TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified





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PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
2SA1015	SOT-23	3000/Tape&Reel