

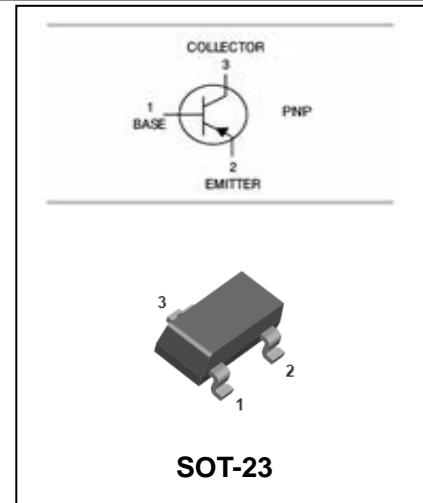
Silicon Epitaxial Planar Transistor

2SA1015

FEATURES

- Complementary to 2SC1815
- Excellent h_{FE} linearity
- High voltage and high current
- Low noise
- Collector-Emitter voltage $BV_{CEO}=-50V$

HF



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

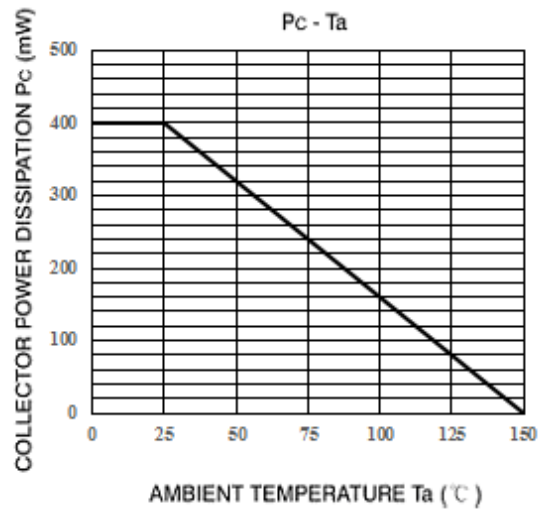
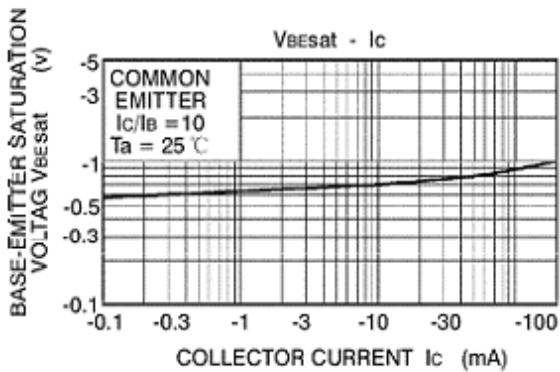
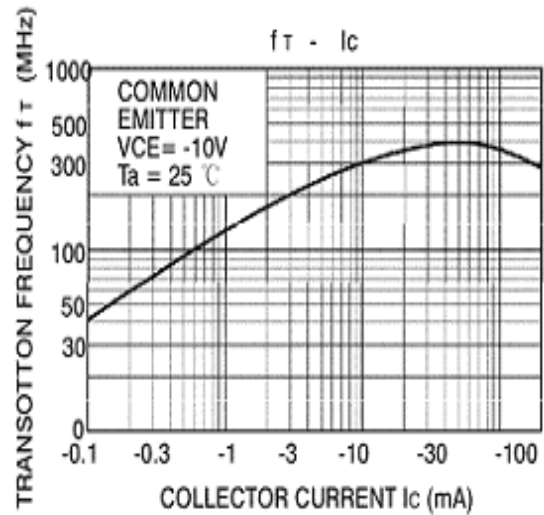
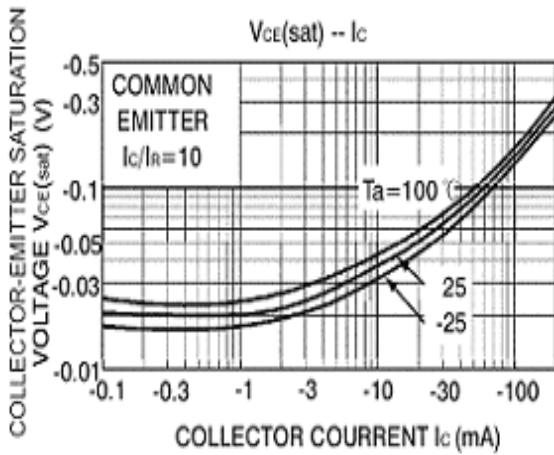
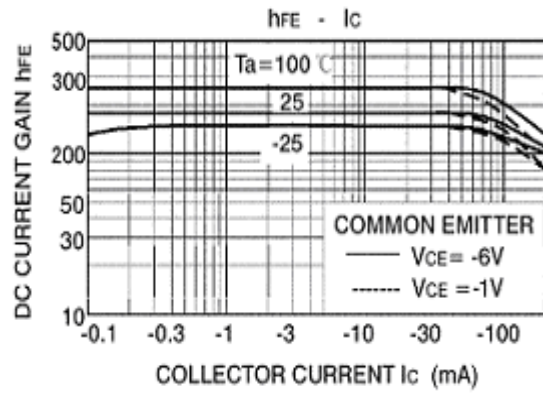
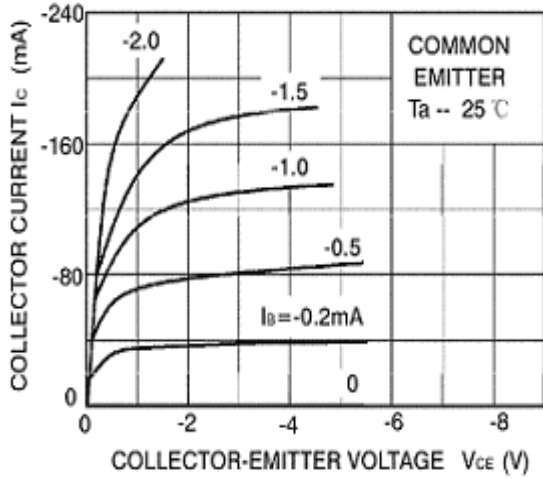
CLASSIFICATION OF $h_{FE(1)}$

Rank	L	H
Range	130-200	200-400

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TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



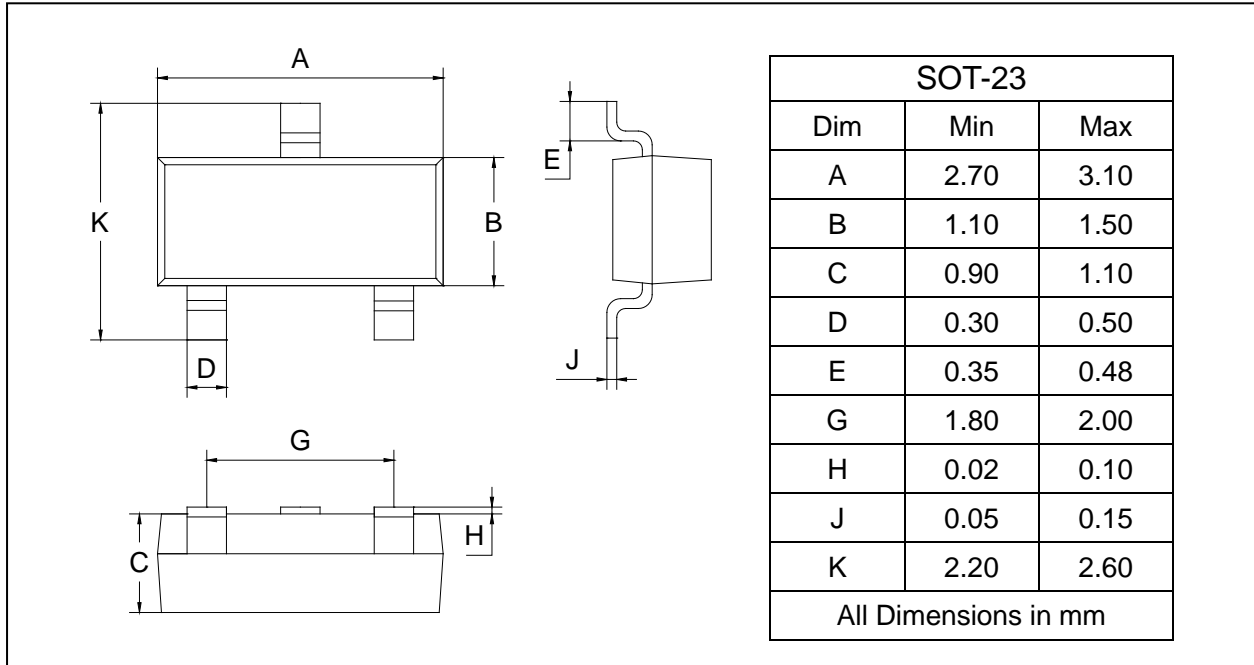
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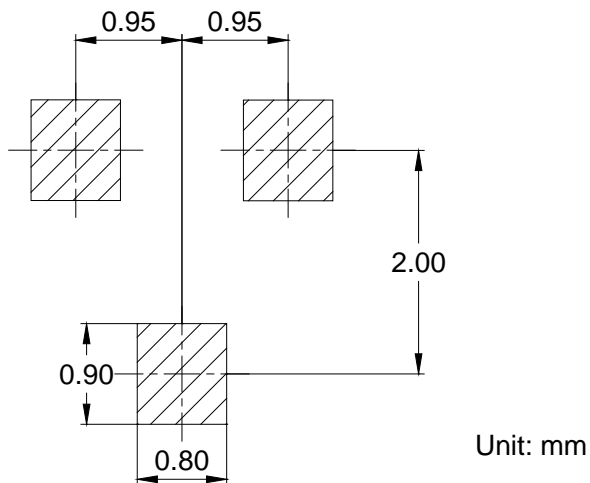
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

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