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KSA1015 PNP Epitaxial Silicon Transistor

Features

• Low-Frequency Amplifier

FAIRCHILD

- Collector-Base Voltage: V_{CBO} = -50 V
- Complement to KSC1815



Ordering Information

Part Number	Marking	Package	Packing Method
KSA1015GRTA	A1015	TO-92 3L	Ammo
KSA1015YTA	A1015	TO-92 3L	Ammo

Absolute Maximum Ratings

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at $T_A = 25^{\circ}$ C unless otherwise noted.

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	-50	V
V _{CEO}	Collector-Emitter Voltage	-50	V
V _{EBO}	Emitter-Base Voltage	-5	V
Ι _C	Collector Current	-150	mA
۱ _B	Base Current	-50	mA
TJ	Junction Temperature	150	°C
T _{STG}	Storage Temperature Range	-55 to 150	°C

Thermal Characteristics⁽¹⁾

Values are at $T_A = 25^{\circ}C$ unless otherwise noted.

Symbol	Parameter	Max.	Unit
р	Total Device Dissipation	400	mW
PD	Derate Above 25°C	3.2	mW/°C
R _{θJA}	Thermal Resistance, Junction to Ambient	312	°C/W

Note:

1. PCB size: FR-4, 76 mm x 114 mm x 1.57 mm (3.0 inch x 4.5 inch x 0.062 inch) with minimum land pattern size.

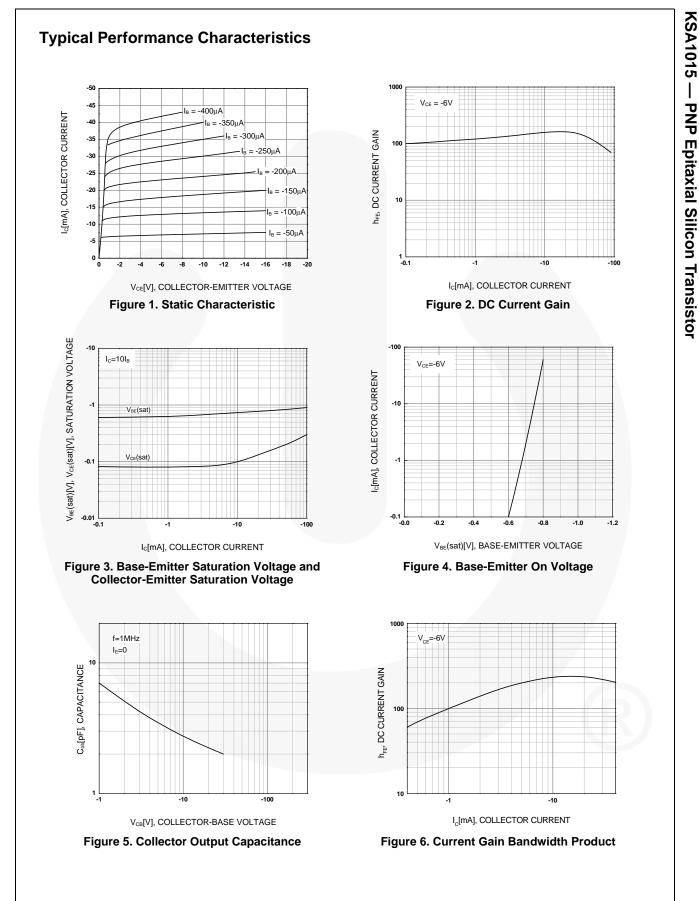
Electrical Characteristics

Values are at $T_A = 25^{\circ}C$ unless otherwise noted.

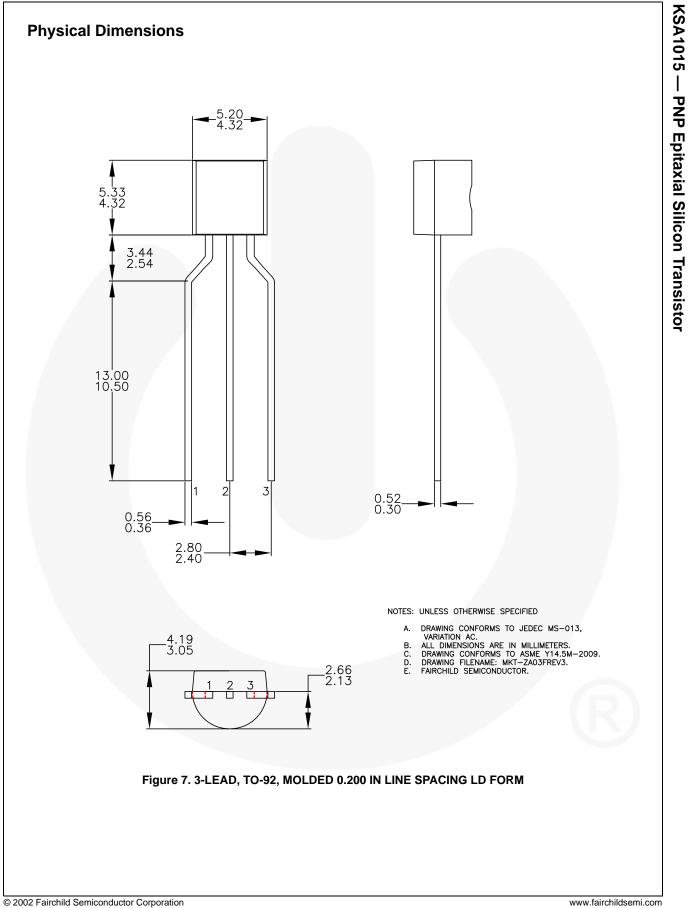
Symbol	Parameter	Conditions	Min.	Тур.	Max.	Unit
BV _{CBO}	Collector-Base Breakdown Voltage	$I_{\rm C} = -100 \mu {\rm A}, I_{\rm E} = 0$	-50			V
BV _{CEO}	Collector-Emitter Breakdown Voltage	I _C = -10 mA, I _B = 0	-50			V
BV _{EBO}	Emitter-Base Breakdown Voltage	$I_{E} = -10 \ \mu A, I_{C} = 0$	-5			V
I _{CBO}	Collector Cut-Off Current	$V_{CB} = -50 V, I_E = 0$			-0.1	μA
I _{EBO}	Emitter Cut-Off Current	$V_{EB} = -5 V, I_{C} = 0$			-0.1	μA
h _{FE} 1	DC Current Gain	$V_{CE} = -6 V, I_{C} = -2 mA$	70		400	
h _{FE} 2	DC Current Gain	$V_{CE} = -6 V, I_{C} = -150 mA$	25			
V _{CE} (sat)	Collector-Emitter Saturation Voltage	I _C = -100 mA, I _B = -10 mA		-0.1	-0.3	V
V _{BE} (sat)	Base-Emitter Saturation Voltage	I _C = -100 mA, I _B = -10 mA			-1.1	V
f _T	Current Gain Bandwidth Product	$V_{CE} = -10 V, I_{C} = -1 mA$	80			MHz
C _{ob}	Output Capacitance	$V_{CB} = -10 \text{ V}, I_E = 0, $ f = 1 MHz		4	7	pF
NF	Noise Figure	V_{CE} = -6 V, I _C = -0.1 mA, f = 100 Hz, R _G = 10 kΩ		0.5	6	dB

h_{FE} Classification

Classification	0	Y	GR
h _{FE} 1	70 ~ 140	120 ~ 240	200 ~ 400



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