



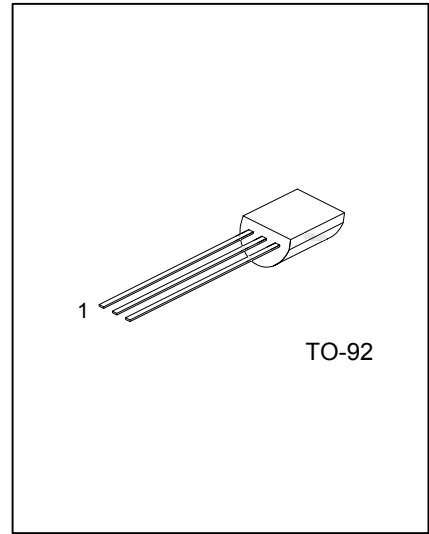
2SA1015

PNP SILICON TRANSISTOR

LOW FREQUENCY PNP AMPLIFIER TRANSISTOR

FEATURES

- * Collector-Emitter Voltage: $BV_{CEO}=-50V$
- * Collector Current up to 150mA
- * High h_{FE} Linearity
- * Complement to UTC 2SC1815



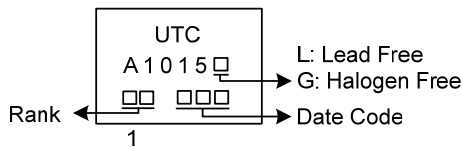
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free Plating	Halogen Free		1	2	3	
2SA1015L-xx-T92-B	2SA1015G-xx-T92-B	TO-92	E	C	B	Tape Box
2SA1015L-xx-T92-K	2SA1015G-xx-T92-K	TO-92	E	C	B	Bulk

Note: Pin Assignment: E: Emitter C: Collector B: Base

<p>2SA1015G-xx-T92-B</p>	<p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Rank</p> <p>(4) Green Package</p>	<p>(1) B: Tape Box, K: Bulk</p> <p>(2) T92: TO-92</p> <p>(3) xx: refer to Classification of h_{FE}</p> <p>(4) G: Halogen Free and Lead Free, L: Lead Free</p>
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MARKING



■ ABSOLUTE MAXIMUM RATING ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-150	mA
Base Current	I_B	-50	mA
Collector Power Dissipation	P_C	400	mW
Junction Temperature	T_J	125	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ +125	$^\circ\text{C}$

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

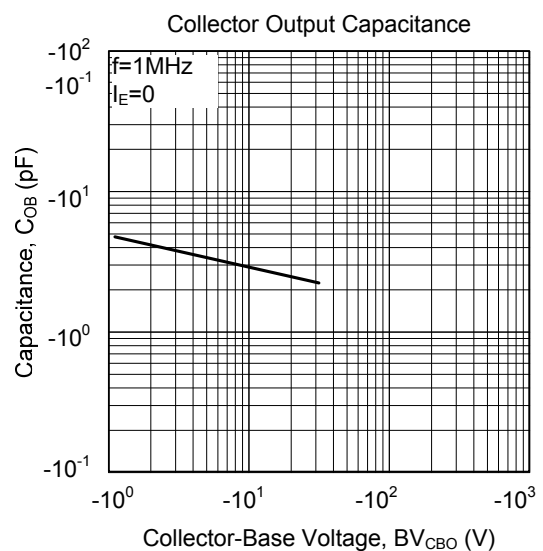
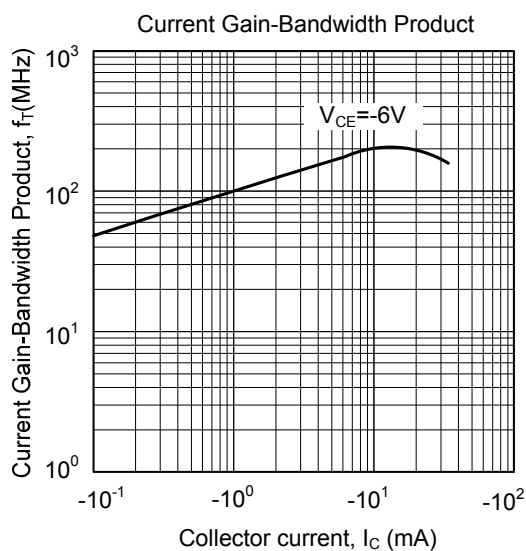
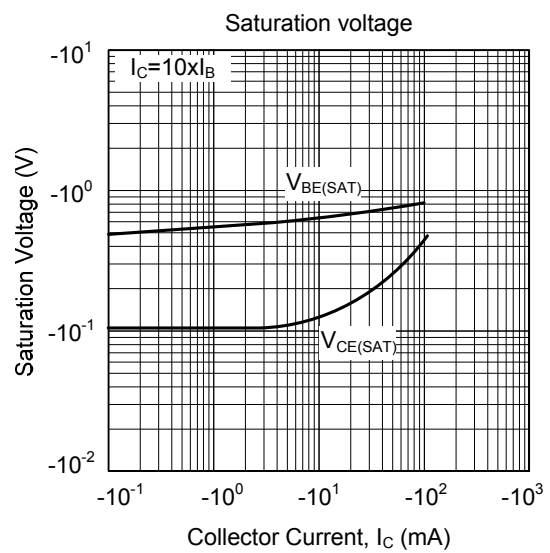
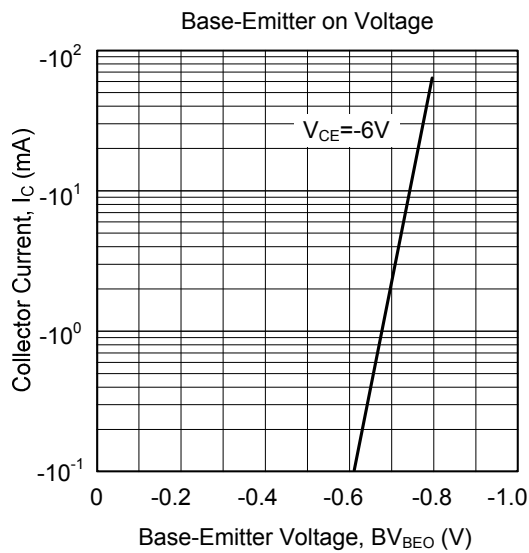
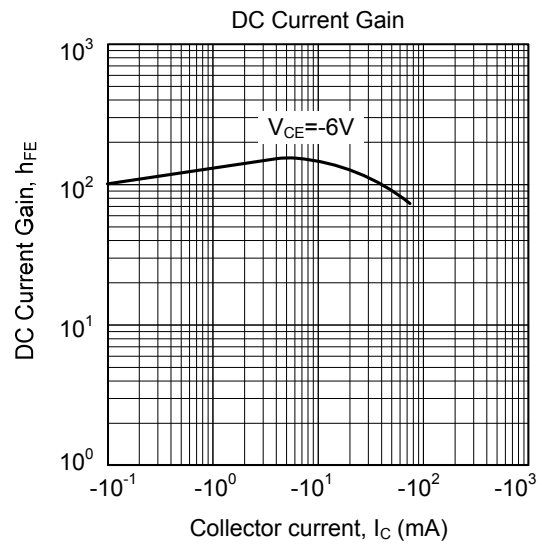
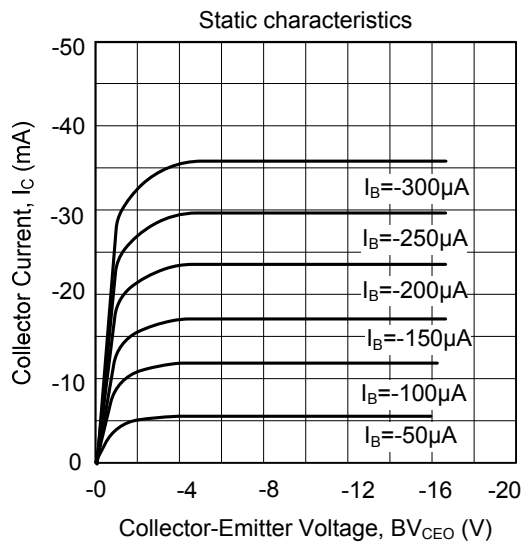
■ ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=-100\mu\text{A}, I_E=0$	-50			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=-10\text{mA}, I_B=0$	-50			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=-10\mu\text{A}, I_C=0$	-5			V
Collector Cut-off Current	I_{CBO}	$V_{CB}=-50\text{V}, I_E=0$			-100	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=-5\text{V}, I_C=0$			-100	nA
DC Current Gain	h_{FE1}	$V_{CE}=-6\text{V}, I_C=-2\text{mA}$	120		700	
	h_{FE2}	$V_{CE}=-6\text{V}, I_C=-150\text{mA}$	25			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=-100\text{mA}, I_B=-10\text{mA}$		-0.1	-0.3	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C=-100\text{mA}, I_B=-10\text{mA}$			-1.1	V
Output Capacitance	C_{OB}	$V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$		4.0	7.0	pF
Current Gain Bandwidth Product	f_T	$V_{CE}=-10\text{V}, I_C=-1\text{mA}$	80			MHz
Noise Figure	NF	$V_{CE}=-6\text{V}, I_C=-0.1\text{mA}, R_G=1\text{k}\Omega, f=100\text{Hz}$		0.5	6	dB

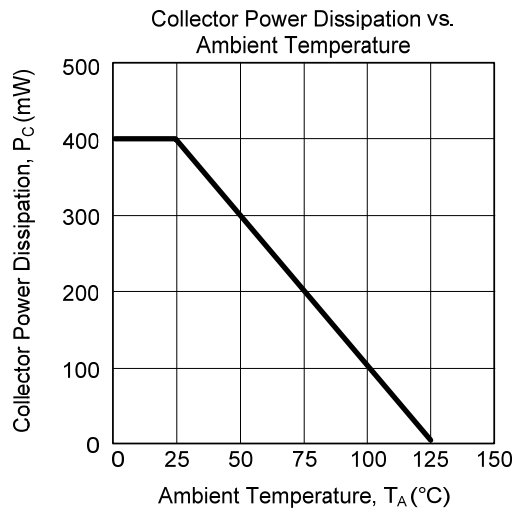
■ CLASSIFICATION OF h_{FE1}

RANK	Y	GR	BL
RANGE	120-240	200-400	350-700

■ TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS (Cont.)



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