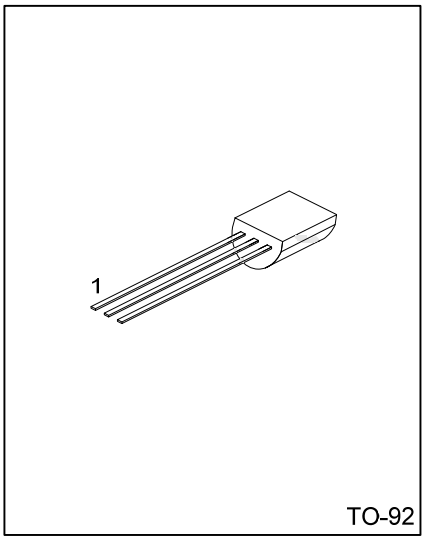
2SA1015

PNP SILICON TRANSISTOR

LOW FREQUENCY PNP AMPLIFIER TRANSISTOR



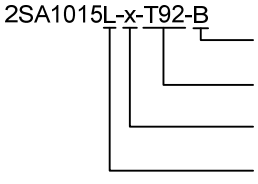
Lead-free: 2SA1015L
Halogen-free: 2SA1015G

■ 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
Normal	Lead Free Plating	Halogen Free		1	2	3	
2SA1015-x-T92-B	2SA1015L-x-T92-B	2SA1015G-x-T92-B	TO-92	E	C	B	Tape Box
2SA1015-x-T92-K	2SA1015L-x-T92-K	2SA1015G-x-T92-K	TO-92	E	C	B	Bulk



(1) B: Tape Box, K:Bulk

(2) T92: TO-92

(3) x: refer to Classification of h_{FE}

(4) G: Halogen Free, L: Lead Free Plating, Blank: Pb/Sn

■ ABSOLUTE MAXIMUM RATING (Ta=25°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 Dissipation	P_C	400	mW
Junction Temperature	T_J	125	°C
Storage Temperature	T_{STG}	-55 ~ +125	°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 (Ta=25°C, unless otherwise specified)

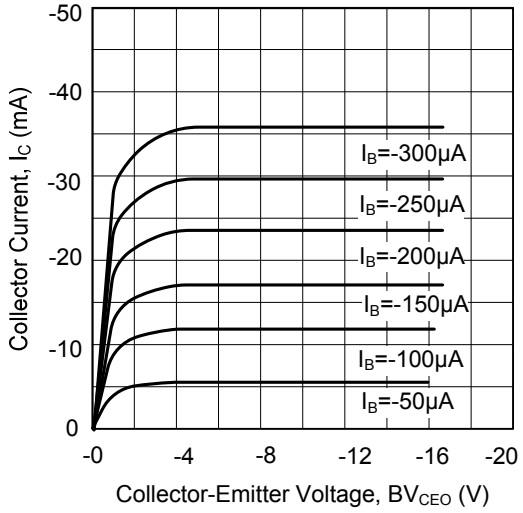
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=-100μA, I_E=0	-50			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=-10mA, I_B=0	-50			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=-10μA, I_C=0	-5			V
Collector Cut-off Current	I_{CBO}	V_{CB}=-50V, I_E=0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

■ CLASSIFICATION OF h_{FE1}

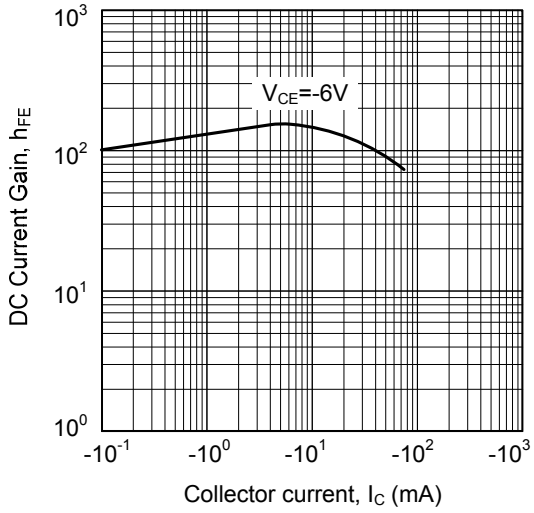
RANK	Y	GR	BL
RANGE	120-240	200-400	350-700

■ TYPICAL CHARACTERISTICS

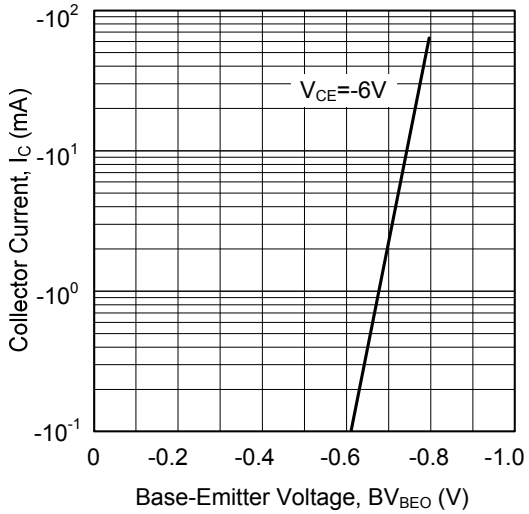
Static characteristics



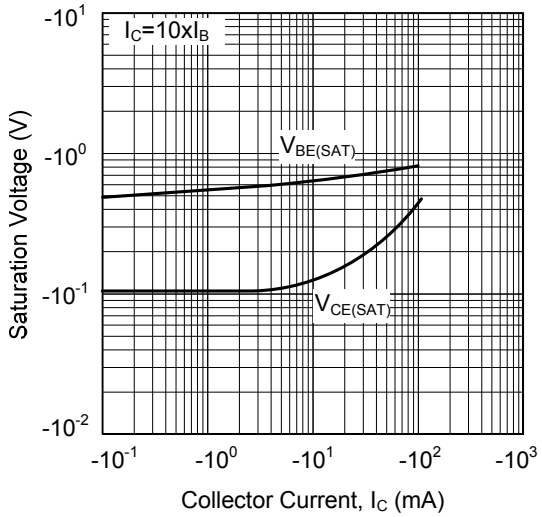
DC Current Gain



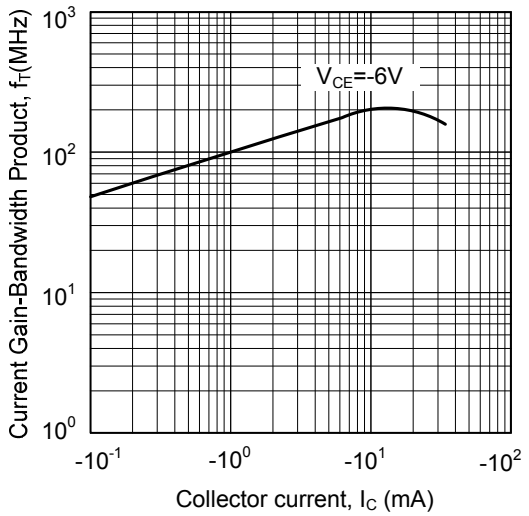
Base-Emitter on Voltage



Saturation voltage



Current Gain-Bandwidth Product



Collector Output Capacitance