



SEMI CONDUCTOR

**2SA1015LT1**

Shandong Yiguang Electronic Joint stock Co., Ltd

**TECHNICAL DATA**

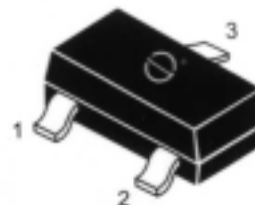
PNP EPITAXIAL SILICON TRANSISTOR

\* Complement to 2SC1815

\* Collector Current :  $I_c=150\text{mA}$ **ABSOLUTE MAXIMUM RATINGS at  $T_a=25$** 

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	$V_{cbo}$	-60	V
Collector-Emitter Voltage	$V_{ceo}$	-50	V
Emitter-Base Voltage	$V_{ebo}$	-5	V
Collector Current	$I_c$	-150	mA
Collector Dissipation $T_a=25$ *	$P_D$	225	mW
Junction Temperature	$T_j$	150	
Storage Temperature	$T_{stg}$	-55-150	

Package:SOT-23



PIN:	1	2	3
STYLE			
NO.1	B	E	C

**ELECTRICAL CHARACTERISTICS at  $T_a=25$** 

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	$BV_{cbo}$	-60			V	$I_c = -100\mu\text{A}$ $I_e = 0$
Collector-Emitter Breakdown Voltage#	$BV_{ceo}$	-50			V	$I_c = -1\text{mA}$ $I_b = 0$
Emitter-Base Breakdown Voltage	$BV_{ebo}$	-5.0			V	$I_e = -100\mu\text{A}$ $I_c = 0$
Collector-Base Cutoff Current	$I_{cbo}$			-100	nA	$V_{cb} = -50\text{V}$ $I_e = 0$
Emitter-Base Cutoff Current	$I_{ebo}$			-100	nA	$V_{eb} = -3\text{V}$ $I_c = 0$
DC Current Gain	$H_{fe}$	70		700		$V_{ce} = -6\text{V}$ $I_c = -2\text{mA}$
Collector-Emitter Saturation Voltage	$V_{ce(sat)}$			-0.30	V	$I_c = -100\text{mA}$ $I_b = -10\text{mA}$

\* Total Device Dissipation :  $FR=1 \times 0.75 \times 0.062\text{in Board}$ , Derate 25 .# Pulse Test : Pulse Width 300 $\mu\text{s}$ , Duty cycle 2%

DEVICE MARKING:

2SA1015=M6



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Fig.1 Grounded emitter propagation characteristics

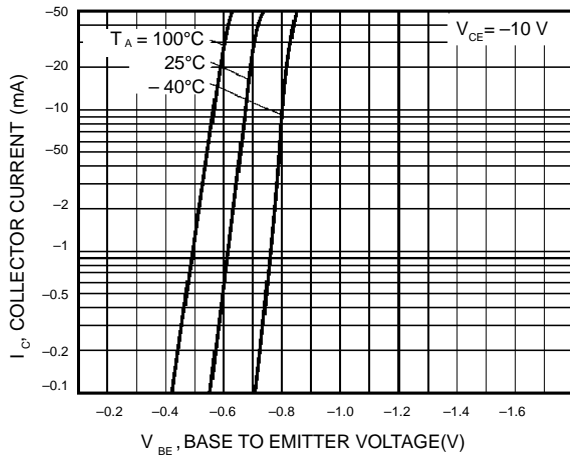


Fig.2 Grounded emitter output characteristics(I)

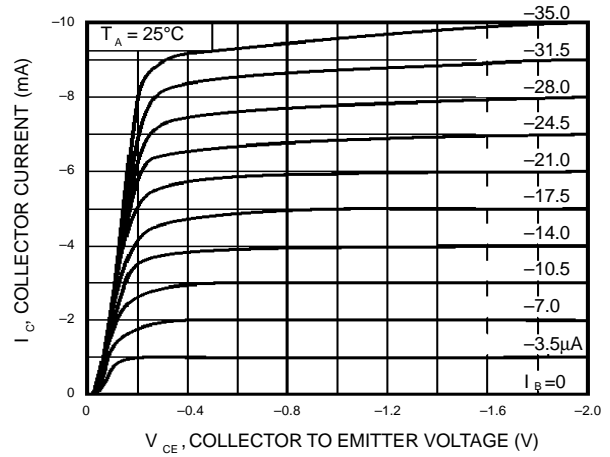


Fig.3 Grounded emitter output characteristics(II)

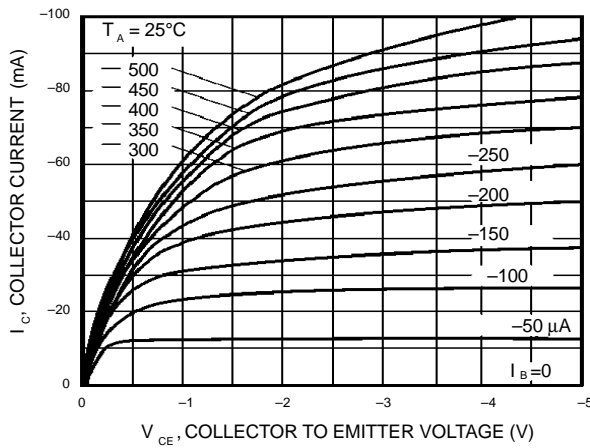


Fig.4 DC current gain vs. collector current (I)

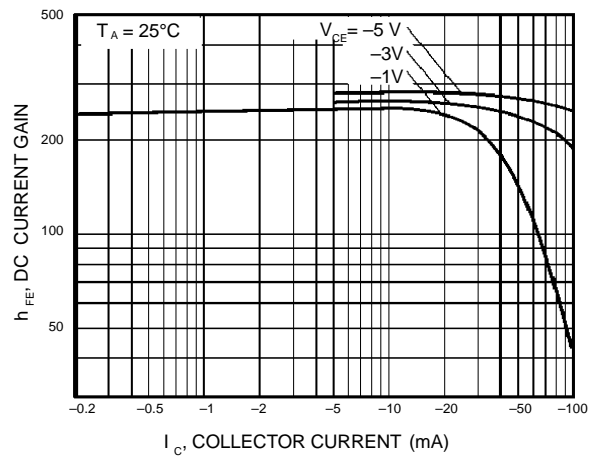


Fig.5 DC current gain vs. collector current (II)

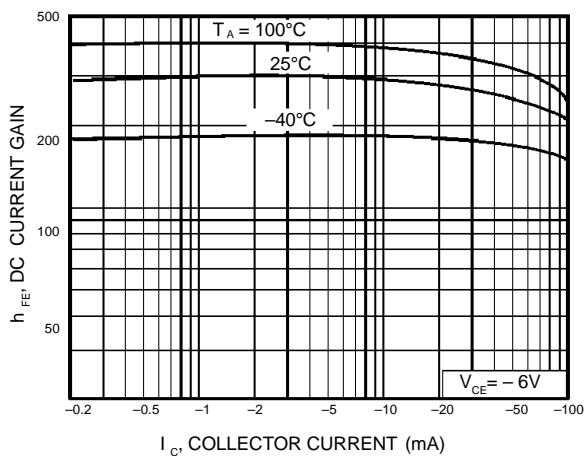
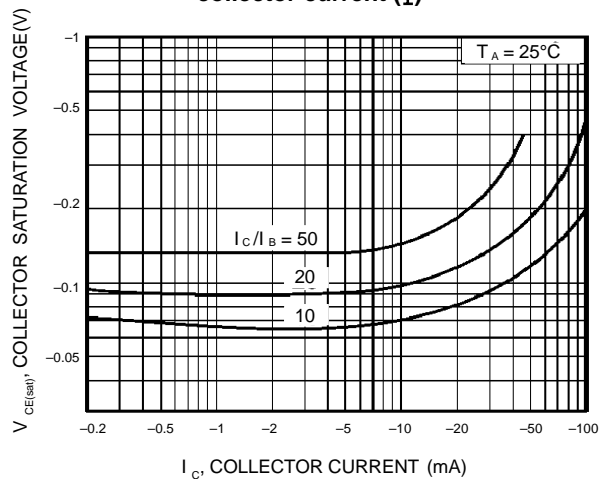


Fig.6 Collector-emitter saturation voltage vs. collector current (I)





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Fig.7 Collector-emitter saturation voltage vs. collector current (I)

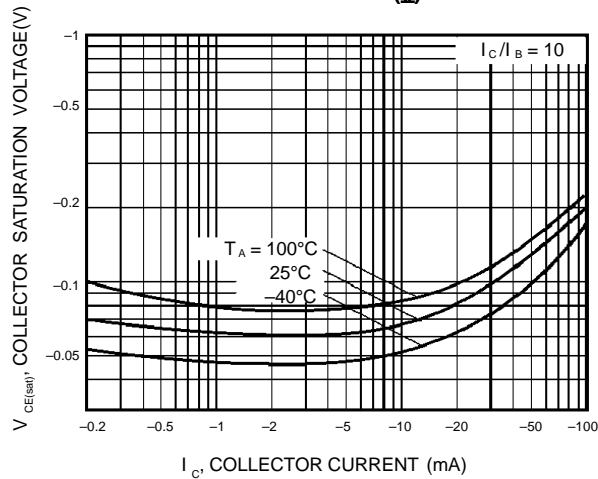


Fig.8 Gain bandwidth product vs. emitter current

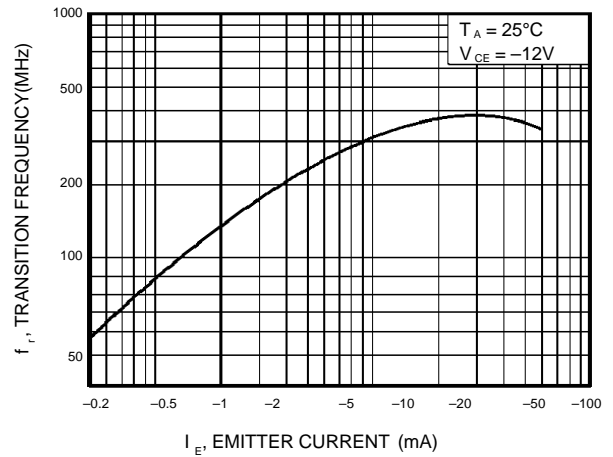


Fig.9 Collector output capacitance vs. collector-base voltage  
Emitter input capacitance vs. emitter-base voltage

