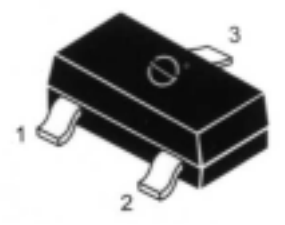
Shandong Yiguang Electronic Joint stock Co., Ltd

SEMICONDUCTOR
TECHNICAL DATA

# 2SA1015LT1

PNP EPITAXIAL SILICON TRANSISTOR

Package:SOT-23




| PIN: / STYLE | 1 | 2 | 3 |
|---|---|---|---|
| NO.1 | B | E | C |

* Complement to 2SC1815

* Collector Current : Ic=150mA

## ABSOLUTE MAXIMUM RATINGS at Ta=25℃

| Characteristic | Symbol | Rating | Unit |
|---|---|---|---|
| Collector-Base Voltage | Vcbo | -60 | V |
| Collector-Emitter Voltage | Vceo | -50 | V |
| Emitter-Base Voltage | Vebo | -5 | V |
| Collector Current | Ic | -150 | mA |
| Collector Dissipation Ta=25℃* | $P_D$ | 225 | mW |
| Junction Temperature | Tj | 150 | ℃ |
| Storage Temperature | Tstg | -55-150 | ℃ |

## ELECTRICAL CHARACTERISTICS at Ta=25℃

| Characteristic | Symbol | Min | Typ | Max | Unit | Test Conditions |
|---|---|---|---|---|---|---|
| Collector-Base Breakdown Voltage | BVcbo | -60 | | | V | Ic= -100uA Ie=0 |
| Collector-Emitter Breakdown Voltage# | BVceo | -50 | | | V | Ic= -1mA Ib=0 |
| Emitter-Base Breakdown Voltage | BVebo | -5.0 | | | V | Ie= -100uA Ic=0 |
| Collector-Base Cutoff Current | Icbo | | | -100 | nA | Vcb= -50V Ie=0 |
| Emitter-Base Cutoff Current | Iebo | | | -100 | nA | Veb= -3V Ic= 0 |
| DC Current Gain | Hfe | 70 | | 700 | | Vce= -6V Ic= -2mA |
| Collector-Emitter Saturation Voltage | Vce(sat) | | | -0.30 | V | Ic= -100mA Ib= -10mA |

* Total Device Dissipation : FR=1X0.75X0.062in Board,Derate 25℃.

\# Pulse Test : Pulse Width ≤300uS,Duty cycle ≤2%

DEVICE MARKING:

2SA1015=M6

**Fig.1 Grounded emitter propagation characteristics**

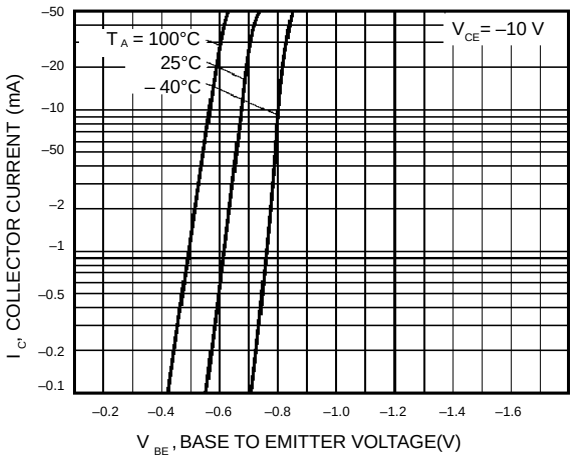



**Fig.2 Grounded emitter output characteristics(Ⅰ)**

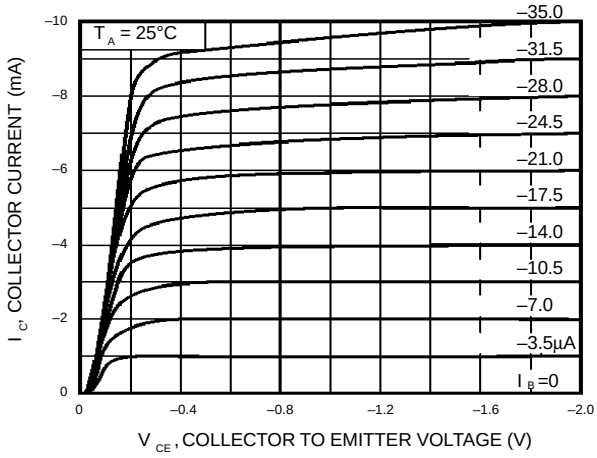



**Fig.3 Grounded emitter output characteristics(Ⅱ)**

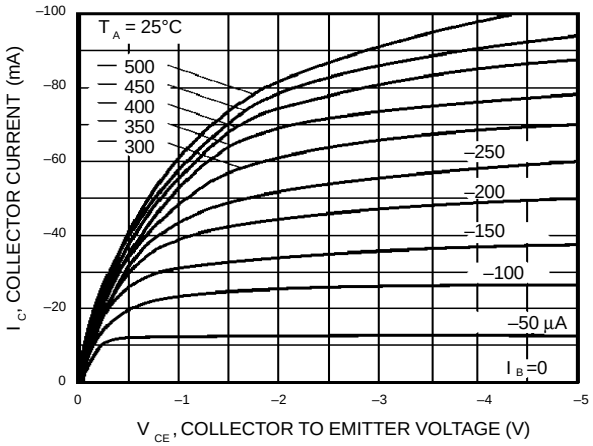



**Fig.4 DC current gain vs. collector current (Ⅰ)**

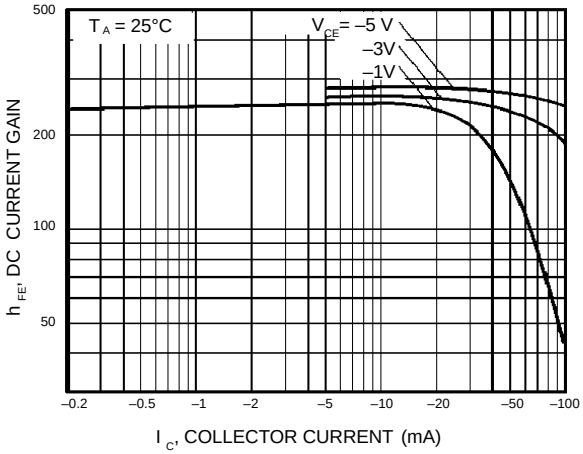



**Fig.5 DC current gain vs. collector current (Ⅱ)**

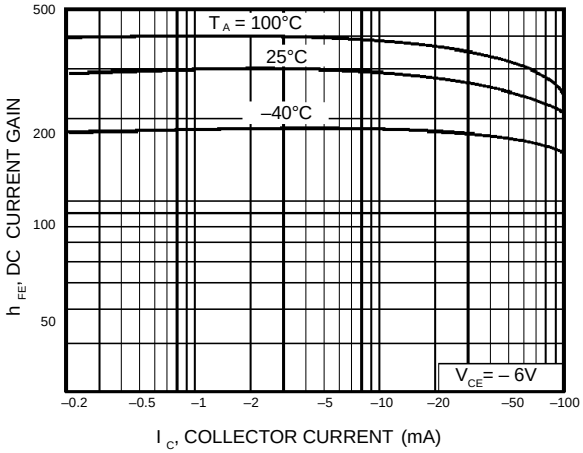



**Fig.6 Collector-emitter saturation voltage vs. collector current (Ⅰ)**

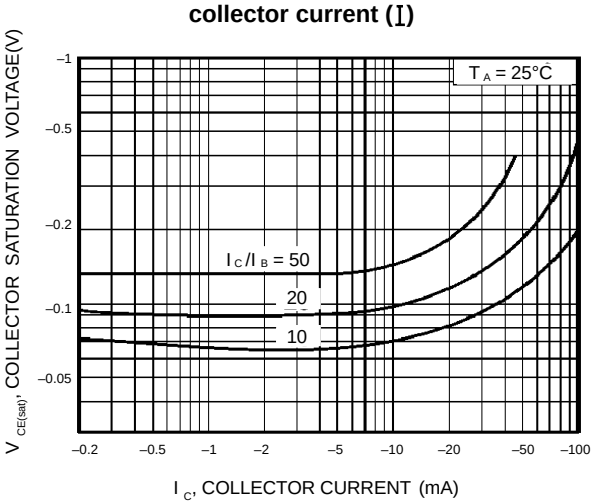


**Fig.7 Collector-emitter saturation voltage vs. collector current (Ⅱ)**

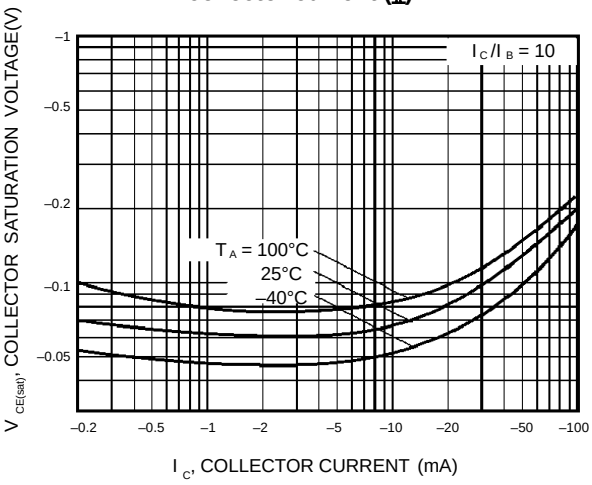



**Fig.8 Gain bandwidth product vs. emitter current**

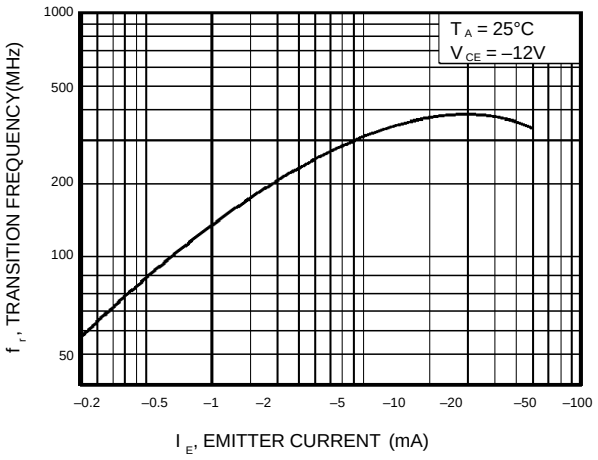



**Fig.9 Collector output capacitance vs.collector-base voltage**
**Emitter inputcapacitance vs. emitter-base voltage**