



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

S9015LT1

PNP Epitaxial Silicon Transistor

Low Frequency, Low Noise Amplifier

- Complement to S9014LT1
- Collector Current: -100mA
- Collector-Emitter Voltage: $V_{CE}=-45V$
- High Total Power Dissipation: $P_c=225mW$



1. Base 2. Emitter 3. Collector
SOT-23 Plastic Package

Absolute Maximum Ratings $T_a=25^{\circ}\text{C}$ unless otherwise noted

Symbol	Characteristic	Value	Units
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-45	V
V_{EB}	Emitter-Base Voltage	-5	V
I_c	Collector Current	-100	mA
P_D	Collector Dissipation $T_a=25^{\circ}\text{C}$ *	225	mW
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{STG}	Storage Temperature	-55~150	$^{\circ}\text{C}$

Electrical Characteristics $T_a=25^{\circ}\text{C}$ unless otherwise noted

Symbol	Characteristic	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C=-100 \mu\text{A}, I_E=0$	-50			V
BV_{CEO}	Collector-Emitter Breakdown Voltage [#]	$I_C=-1\text{mA}, I_B=0$	-45			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E=-100 \mu\text{A}, I_C=0$	-5			V
I_{CBO}	Collector-Base Cutoff Current	$V_{CB}=-50\text{V}, I_E=0\text{V}$			-50	$\eta\text{ A}$
I_{EBO}	Emitter-Base Cutoff Current	$V_{EB}=-5\text{V}, I_C=0$			-50	$\eta\text{ A}$
h_{FE}	DC Current Gain Group C Group D	$V_{CE}=-5\text{V}, I_C=-1\text{mA}$	200 400		600 1000	
$V_{CE(\text{sat})}$	Collector-Emitter Saturation Voltage	$I_C=-100\text{mA}, I_B=-5\text{mA}$		-0.2	-0.7	V
$V_{BE(\text{sat})}$	Base-Emitter Saturation Voltage	$I_C=-100\text{mA}, I_B=-5\text{mA}$		-0.82	-1.0	V
$V_{BE(\text{ON})}$	Base-Emitter On Voltage	$V_{CE}=-5\text{V}; I_C=-2\text{mA}$	-0.6	-0.67	-0.75	V
C_{OB}	Output Capacitance	$V_{CB}=-10\text{V}; I_E=0$ $f=1\text{MHz}$		4.5	7	pF
f_T	Current Gain-Bandwidth Product	$V_{CE}=-5\text{V}; I_C=-10\text{mA}$	100	190		MHz
NF	Noise Figure	$V_{CE}=-5\text{V}; I_C=-0.2\text{mA};$ $f=1\text{KHz}; R_S=1\text{Kohm}$			10	dB

Marking : L6(Group)

* Total Device Dissipation : $FR=1\times0.75\times0.062$ in Board, Derate 25°C

Pulse Test : Pulse Width $\leq 300\mu\text{s}$, Duty cycle $\leq 2\%$



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Fig. 1 P_C-T_a

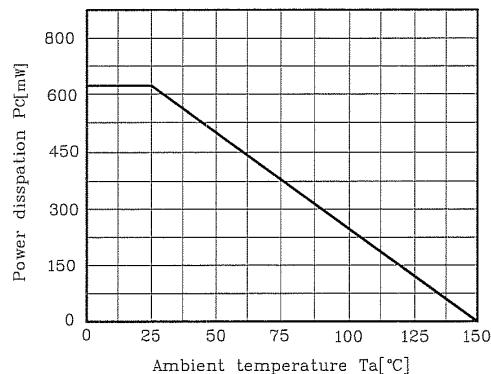


Fig. 2 I_C-V_{BE}

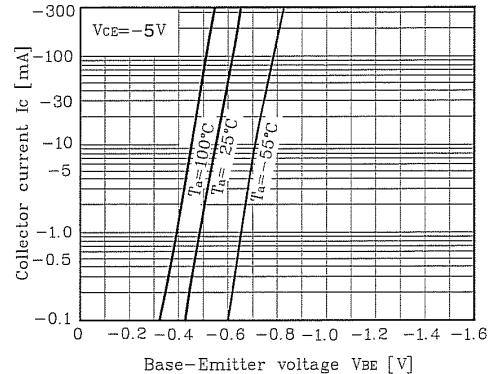


Fig. 3 I_C-V_{CE}

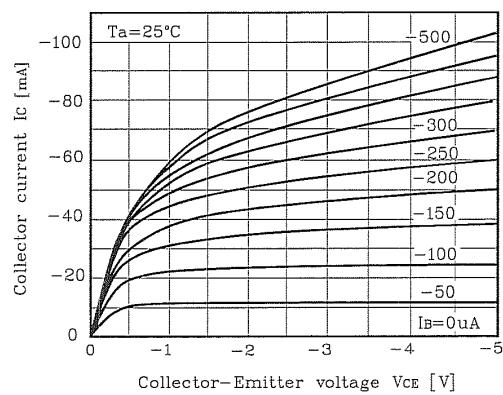


Fig. 4 $h_{FE}-I_C$

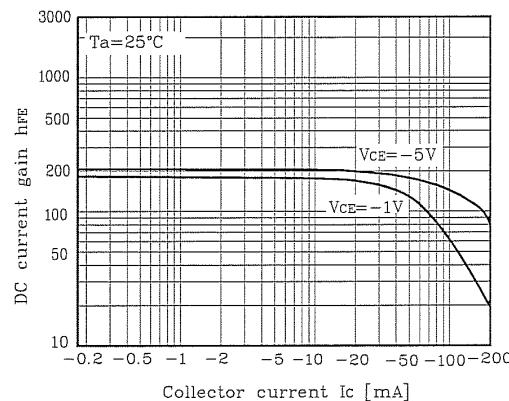


Fig. 5 $V_{CE(sat)}-I_C$

