

## TO-92L Plastic-Encapsulate Transistors

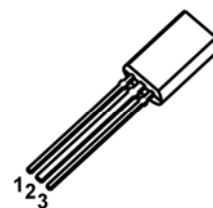
### 2SB647 TRANSISTOR (PNP)

#### FEATURES

- Low Frequency Power Amplifier
- Complementary Pair with 2SD667

#### TO - 92L

1. EMITTER
2. COLLECTOR
3. BASE



#### MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V <sub>CB0</sub>	Collector-Base Voltage	-120	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-80	V
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V
I <sub>C</sub>	Collector Current	-1	A
P <sub>C</sub>	Collector Power Dissipation	750	mW
R <sub>θJA</sub>	Thermal Resistance From Junction To Ambient	167	°C/W
T <sub>j</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55~+150	°C

#### ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =-10μA, I <sub>E</sub> =0	-120			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =-1mA, I <sub>B</sub> =0	-80			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =-10μA, I <sub>C</sub> =0	-5			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =-100V, I <sub>E</sub> =0			-10	μA
DC current gain	h <sub>FE(1)</sub> *	V <sub>CE</sub> =-5V, I <sub>C</sub> =-150mA	60		320	
	h <sub>FE(2)</sub> *	V <sub>CE</sub> =-5V, I <sub>C</sub> =-500mA	30			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub> *	I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA			-1	V
Base-emitter voltage	V <sub>BE</sub> *	V <sub>CE</sub> =-5V, I <sub>C</sub> =-150mA			-1.5	V
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =-10V, I <sub>E</sub> =0, f=1MHz		20		pF
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =-5V, I <sub>C</sub> =-150mA		140		MHz

\*Pulse test

#### CLASSIFICATION OF h<sub>FE(1)</sub>

RANK	B	C	D
RANGE	60-120	100-200	160-320