

TO-92MOD Plastic-Encapsulate Transistors

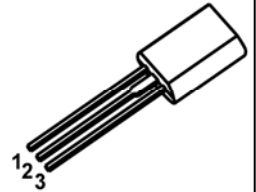
2SB647/2SB647A TRANSISTOR (PNP)

FEATURES

- Low Frequency Power Amplifier
- Complementary Pair with 2SD667/A

TO – 92MOD

1. EMITTER
2. COLLECTOR
3. BASE



MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	-120	V
V _{CEO}	Collector-Emitter Voltage	2SB647	-80
		2SB647A	-100
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current	-1	A
P _C	Collector Power Dissipation	900	mW
R _{θJA}	Thermal Resistance From Junction To Ambient	139	°C/W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~+150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = -10μA, I _E =0	-120			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =-1mA, I _B =0	2SB647	-80		V
			2SB647A	-100		
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =-10μA, I _C =0	-5			V
Collector cut-off current	I _{CBO}	V _{CB} =-100V, I _E =0			-10	μA
DC current gain	h _{FE(1)} *	V _{CE} =-5V, I _C =-150mA	2SB647	60	320	
			2SB647A	60	200	
	h _{FE(2)} *	V _{CE} =-5V, I _C =-500mA	30			
Collector-emitter saturation voltage	V _{CE(sat)} *	I _C =-500mA, I _B =-50mA			-1	V
Base-emitter voltage	V _{BE} *	V _{CE} =-5V, I _C =-150mA			-1.5	V
Collector output capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz		20		pF
Transition frequency	f _T	V _{CE} =-5V, I _C =-150mA		140		MHz

*Pulse test: pulse width ≤300μs, duty cycles ≤ 2.0%.

CLASSIFICATION OF h_{FE(1)}

TYPE	2SB647		
	2SB647A		
RANK	B	C D	
RANGE	60-120	100-200	
		160-320	

Typical Characteristics

2SB647

