



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

SOT-523 Plastic-Encapsulate Transistors

2SC4617 TRANSISTOR (NPN)

FEATURES

- Low Cob:Cob=2.0pF(Typ)
- Complement to 2SA1774

SOT-523

1. BASE
2. EMITTER
3. COLLECTOR



MAXIMUM RATINGS* T_A=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _{CBO}	Collector-Base Voltage	60	V
V _{CEO}	Collector-Emitter Voltage	50	V
V _{EBO}	Emitter-Base Voltage	7	V
I _C	Collector Current -Continuous	150	mA
P _C	Collector Dissipation	150	mW
T _J , T _{stg}	Junction and Storage Temperature	-55-150	°C

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =50μA, I _E =0	60			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	50			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =50μA, I _C =0	7			V
Collector cut-off current	I _{CBO}	V _{CB} =60V, I _E =0			0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =7V, I _E =0			0.1	μA
DC current gain	h _{FE(1)}	V _{CE} =6V, I _C =1mA	120		560	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =50mA, I _B =5mA			0.4	V
Transition frequency	f _T	V _{CE} =12V, I _C =2mA, f=100MHz		180		MHz
Collector output capacitance	C _{ob}	V _{CB} =12V, I _E =0, f=1MHz			3.5	pF

CLASSIFICATION OF h_{FE(1)}

Rank	Q	R	S
Range	120-270	180-390	270-560
Marking	BQ	BR	BS

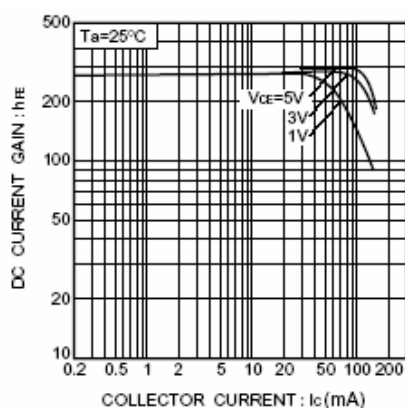


Fig.1 DC current gain vs. collector current

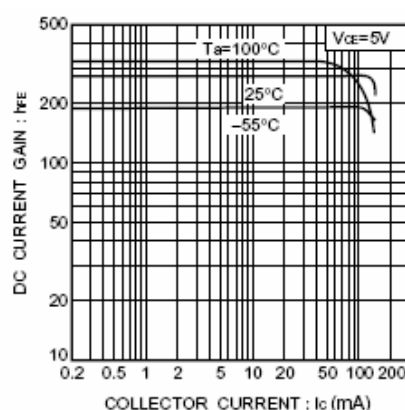


Fig.2 DC current gain vs. collector current

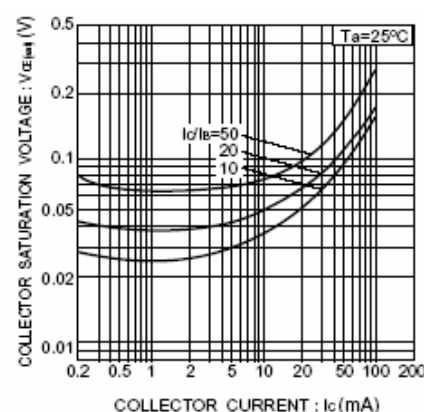


Fig.3 Collector-emitter saturation voltage vs. collector current

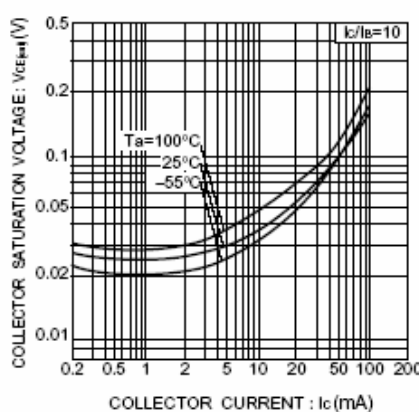


Fig.4 Collector-emitter saturation voltage vs. collector current

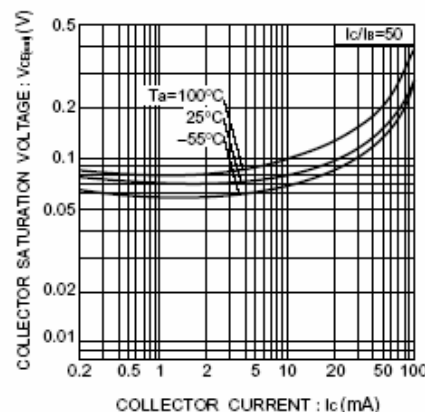


Fig.5 Collector-emitter saturation voltage vs. collector current

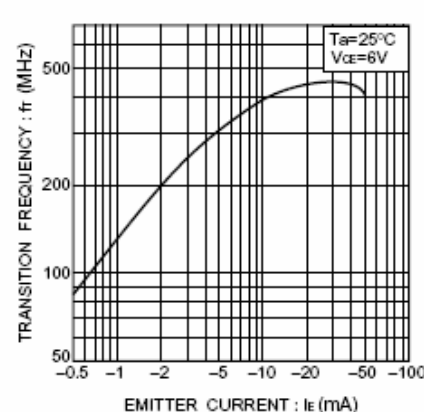


Fig.6 Gain bandwidth product vs. emitter current

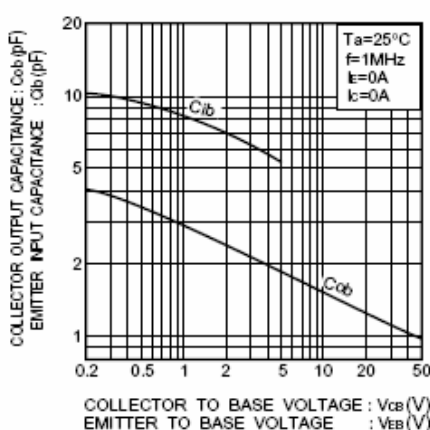


Fig.7 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

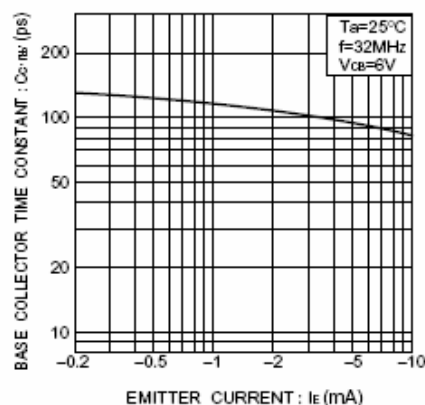


Fig.8 Base-collector time constant vs. emitter current