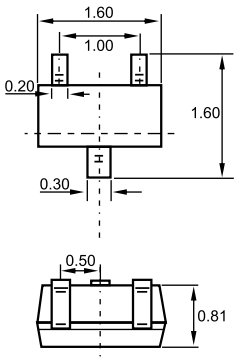
2SC4617

SOT-523 Transistor(NPN)

1. BASE
2. EMITTER
3. COLLECTOR

SOT-523



Dimensions in inches and (millimeters)

Features

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

MAXIMUM RATINGS (T_A=25℃ 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 Power Dissipation	150	mW
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=50uA, 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=50uA, 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}	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}

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

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Typical characteristics

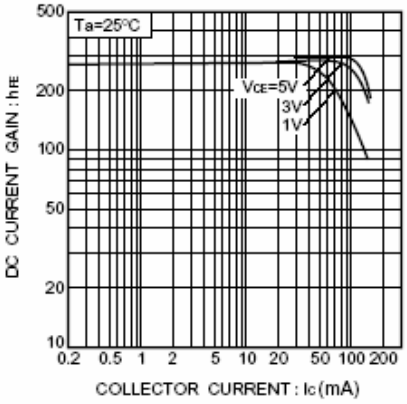

Fig.1 DC current gain vs. collector current

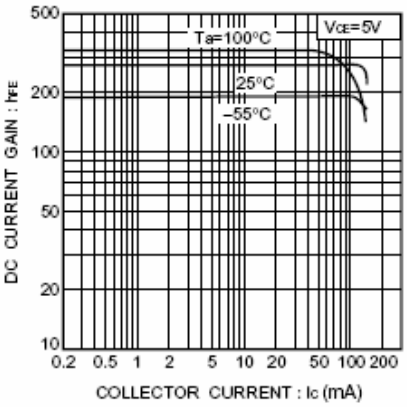

Fig.2 DC current gain vs. collector current

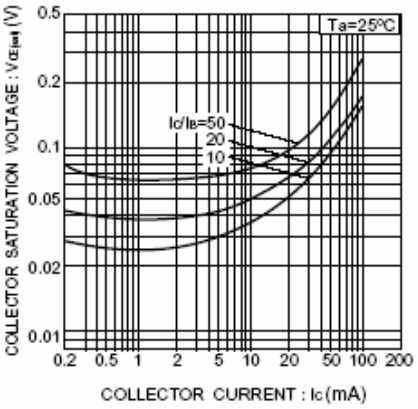

Fig. 3 Collector-emitter saturation voltage vs. collector current

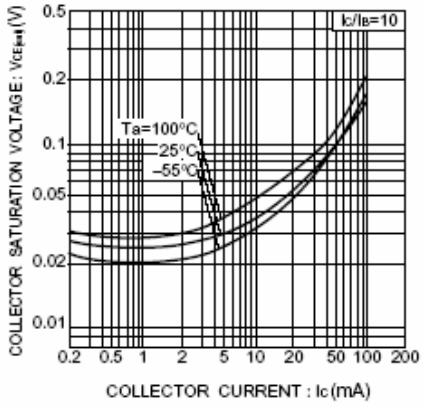

Fig.4 Collector-emitter saturation voltage vs. collector current

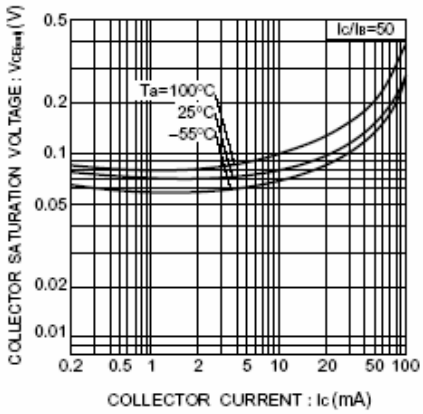

Fig.5 Collector-emitter saturation voltage vs. collector current

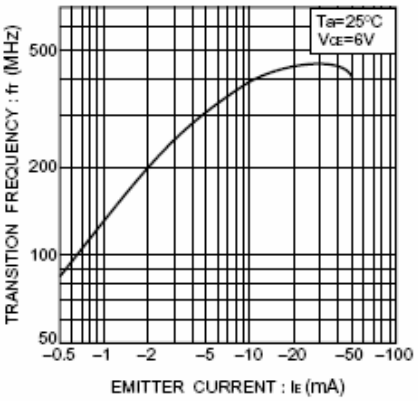

Fig.6 Gain bandwidth product vs. emitter current

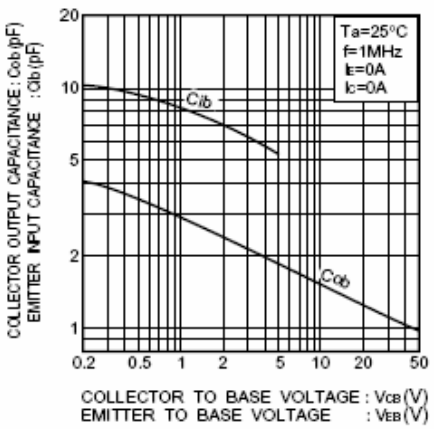

Fig.7 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

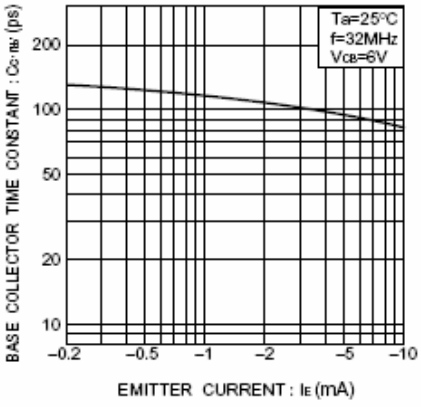

Fig.8 Base-collector time constant vs. emitter current