

RoHS Compliant Product  
A suffix of "-C" specifies halogen and lead free

## FEATURES

- Low  $C_{ob}$ .  $C_{ob}=2.0pF$
- Complement of 2SA1774

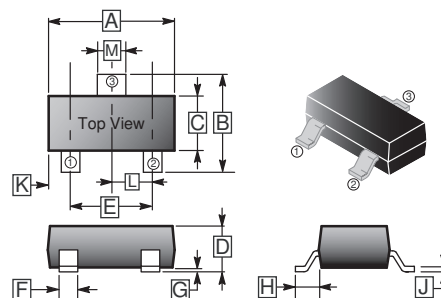
## CLASSIFICATION OF $h_{FE}$

Product-Rank	2SC4617-Q	2SC4617-R	2SC4617-S
Range	120~270	180~390	270~560
Marking	BQ	BR	BS

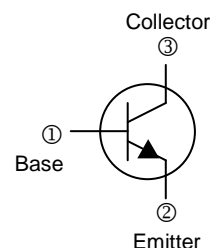
## PACKAGE INFORMATION

Package	MPQ	LeaderSize
SOT-523	3K	7' inch

## SOT-523



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.5	1.7	G	-	0.1
B	1.45	1.75	H	0.55 REF.	-
C	0.75	0.85	J	0.1	0.2
D	0.7	0.9	K	-	-
E	0.9	1.1	L	0.5 TYP.	-
F	0.15	0.25	M	0.25	0.325



## ABSOLUTE MAXIMUM RATINGS ( $T_A = 25^\circ C$ unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	$V_{CBO}$	60	V
Collector to Emitter Voltage	$V_{CEO}$	50	V
Emitter to Base Voltage	$V_{EBO}$	7	V
Collector Current	$I_C$	150	mA
Collector Power Dissipation	$P_C$	150	mW
Junction & Storage Temperature	$T_J, T_{STG}$	150, -55 ~ 150	$^\circ C$

## ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ C$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-base breakdown voltage	$V_{(BR)CBO}$	60	-	-	V	$I_C=50\mu A, I_E=0$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	50	-	-	V	$I_C=1mA, I_B=0$
Emitter-base breakdown voltage	$V_{(BR)EBO}$	7	-	-	V	$I_E=50\mu A, I_C=0$
Collector cut-off current	$I_{CBO}$	-	-	0.1	$\mu A$	$V_{CB}=60V, I_E=0$
Emitter cut-off current	$I_{EBO}$	-	-	0.1	$\mu A$	$V_{EB}=7V, I_C=0$
Collector-emitter saturation voltage *	$V_{CE(sat)}$	-	-	0.4	V	$I_C=50mA, I_B=5mA$
DC current gain	$h_{FE}$	120	-	560	-	$V_{CE}=6V, I_C=1mA$
Transition frequency	$f_T$	-	180	-	MHz	$V_{CE}=12V, I_E=2mA, f=100MHz$
Collector output capacitance	$C_{ob}$	-	-	3.5	pF	$V_{CB}=12V, I_E=0, f=1MHz$

\* Pulse Test :Pulse Width  $\leq 300\mu s, D.C \leq 2\%$

**CHARACTERISTIC CURVES**

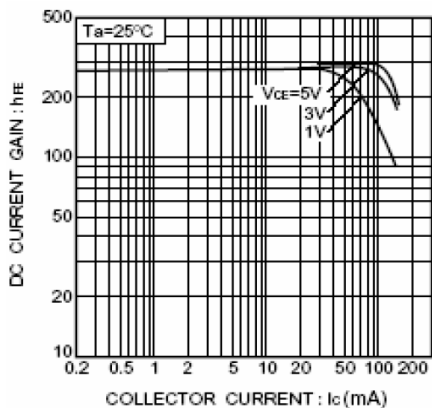


Fig.1 DC current gain vs. collector current

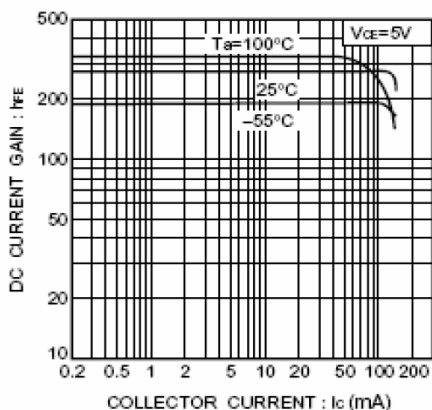


Fig.2 DC current gain vs. collector current

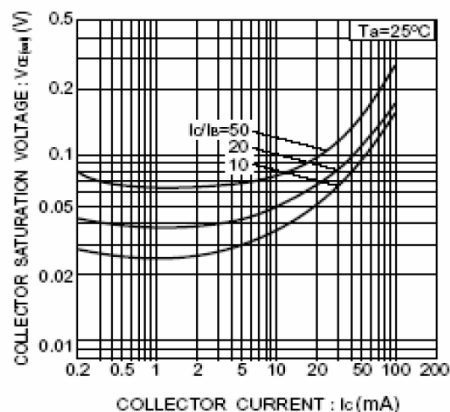


Fig.3 Collector-emitter saturation voltage vs. collector current

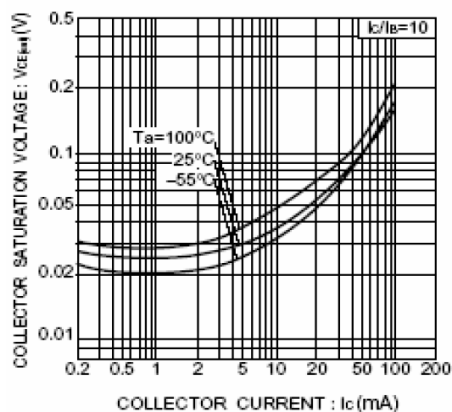


Fig.4 Collector-emitter saturation voltage vs. collector current

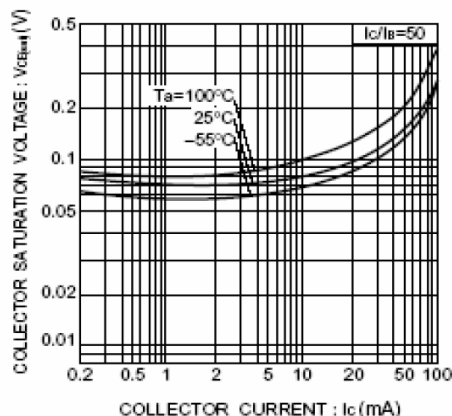


Fig.5 Collector-emitter saturation voltage vs. collector current

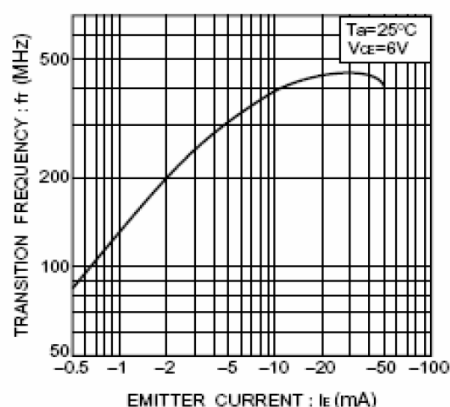


Fig.6 Gain bandwidth product vs. emitter current

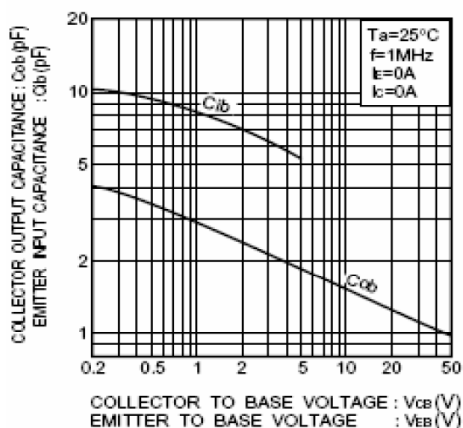


Fig.7 Collector output capacitance vs. collector-base voltage  
Emitter input capacitance vs. emitter-base voltage

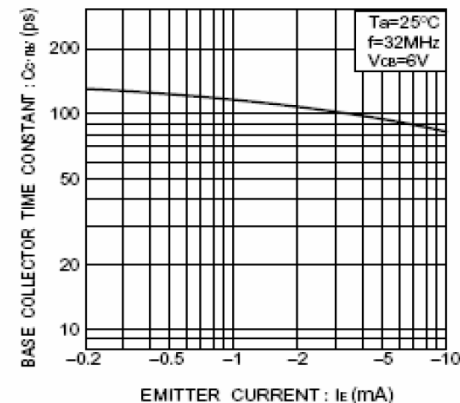


Fig.8 Base-collector time constant vs. emitter current