



Micro Commercial Components  
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# 2SC4617-Q 2SC4617-R 2SC4617-S

## Features

- Complement to 2SA1774-Q/R/S
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

### Maximum Ratings @ 25°C Unless Otherwise Specified

Symbol	Rating	Rating	Unit
V <sub>CEO</sub>	Collector-Emitter Voltage	50	V
V <sub>CBO</sub>	Collector-Base Voltage	60	V
V <sub>EBO</sub>	Emitter-Base Voltage	7	V
I <sub>C</sub>	Collector Current-Continuous	150	mA
P <sub>C</sub>	Collector Dissipation	150	mW
T <sub>J</sub>	Operating Junction Temperature	-55 to +150	°C
T <sub>STG</sub>	Storage Temperature	-55 to +150	°C

### Electrical Characteristics @ 25°C Unless Otherwise Specified

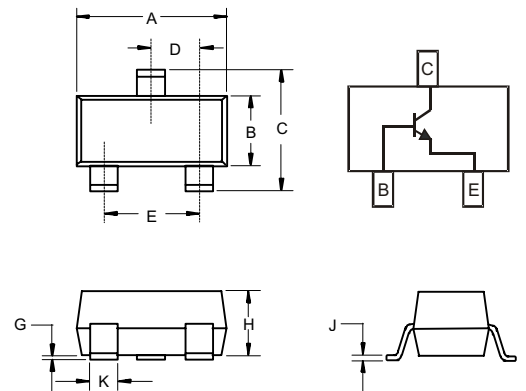
Symbol	Parameter	Min	Typ	Max	Units
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage (I <sub>C</sub> =1mA <sub>dc</sub> , I <sub>E</sub> =0)	50	---	---	Vdc
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage (I <sub>C</sub> =50uA <sub>dc</sub> , I <sub>E</sub> =0)	60	---	---	Vdc
V <sub>(BR)EBO</sub>	Collector-Emitter Breakdown Voltage (I <sub>E</sub> =50uA <sub>dc</sub> , I <sub>C</sub> =0)	7	---	---	Vdc
I <sub>CBO</sub>	Collector Cutoff Current (V <sub>CB</sub> =60Vdc, I <sub>E</sub> =0Vdc)	---	---	0.1	μ A <sub>dc</sub>
I <sub>EBO</sub>	Emitter Cutoff Current (V <sub>EB</sub> =7Vdc, I <sub>C</sub> =0Vdc)	---	---	0.1	μ A <sub>dc</sub>
h <sub>FE</sub>	DC Current Gain (I <sub>C</sub> =1mA <sub>dc</sub> , V <sub>CE</sub> =6Vdc)	120	---	560	---
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage (I <sub>C</sub> =50mA <sub>dc</sub> , I <sub>E</sub> =5mA <sub>dc</sub> )	---	---	0.4	Vdc
f <sub>T</sub>	Transition Frequency (V <sub>CE</sub> =12Vdc, I <sub>C</sub> =2mA <sub>dc</sub> , f=100MHz)	---	180	---	MHz
C <sub>ob</sub>	Output Capacitance (V <sub>CB</sub> =12Vdc, f=1.0MHz, I <sub>E</sub> =0)	---	2.0	3.5	pF

### Classification OF h<sub>FE</sub>

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

## NPN General Purpose Transistors

### SOT-523



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.059	.067	1.50	1.70	
B	.030	.033	0.75	0.85	
C	.057	.069	1.45	1.75	
D	.020 Nominal		0.50Nominal		
E	.035	.043	0.90	1.10	
G	.000	.004	.000	.100	
H	.028	.031	.70	0.80	
J	.004	.008	.100	.200	
K	.010	.014	.25	.35	

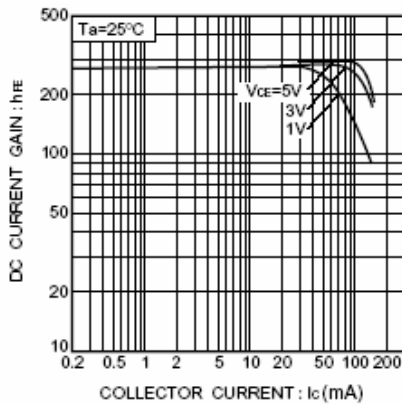


Fig.1 DC current gain vs. collector current

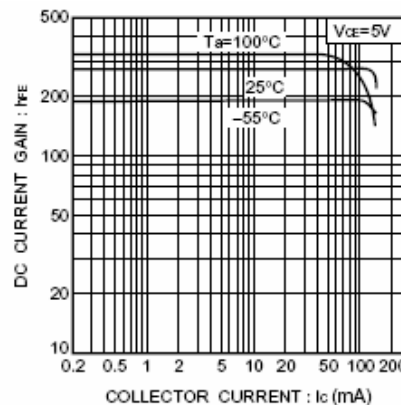


Fig.2 DC current gain vs. collector current

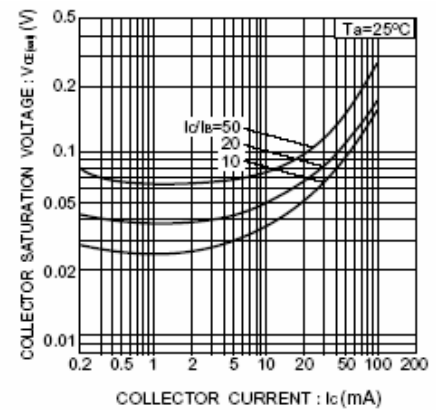


Fig. 3 Collector-emitter saturation voltage vs. collector current

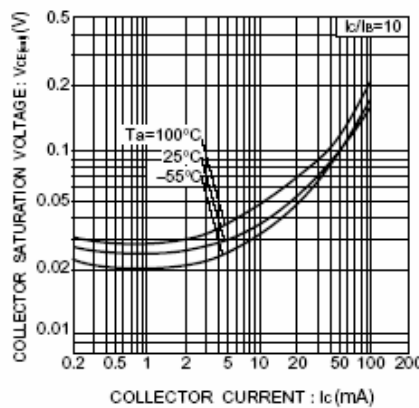


Fig.4 Collector-emitter saturation voltage vs. collector current

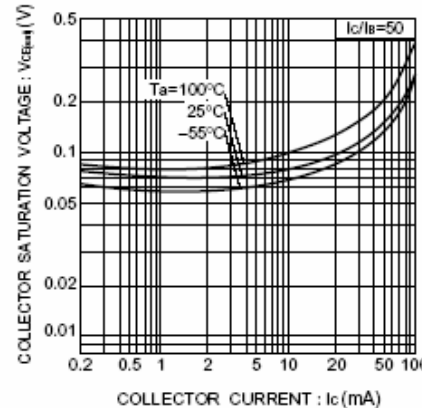


Fig.5 Collector-emitter saturation voltage vs. collector current

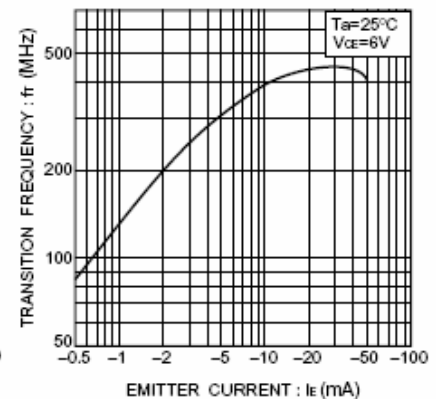


Fig.6 Gain bandwidth product vs. emitter current

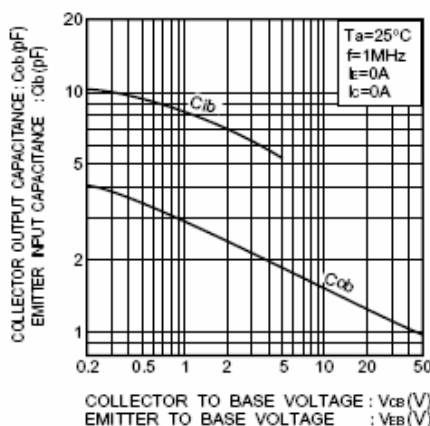


Fig.7 Collector output capacitance vs. collector-base voltage  
Emitter input capacitance vs. emitter-base voltage

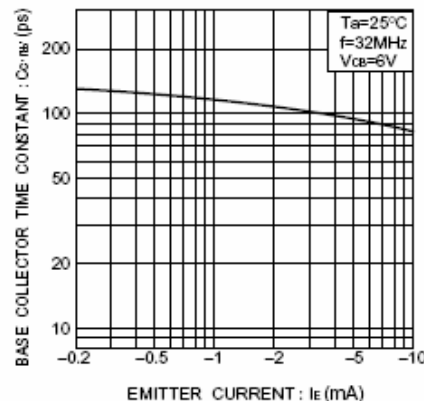


Fig.8 Base-collector time constant vs. emitter current



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### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel; 3Kpcs/Reel

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