



# 2SC4617

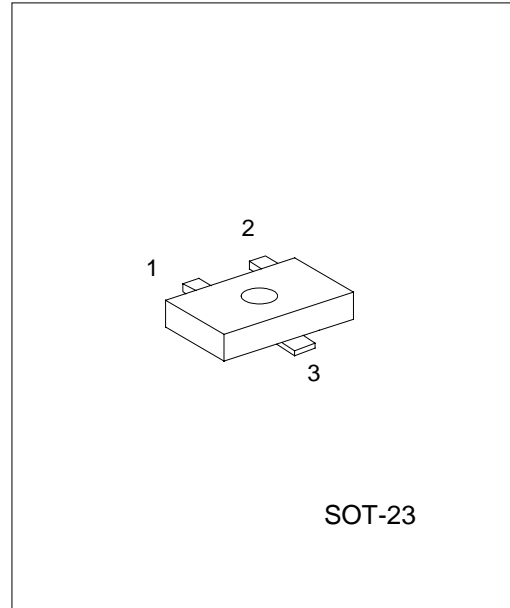
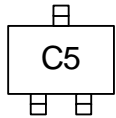
## NPN EPITAXIAL SILICON TRANSISTOR

### GENERAL PURPOSE TRANSISTOR

■ FEATURES

- \* Low Cob  
Cob=2.0pF (typ)
- \* Complements the UTC 2SA1774

■ MARKING



\*Pb-free plating product number: 2SC4617L

■ PIN CONFIGURATION

PIN NO.	PIN NAME
1	Emitter
2	Base
3	Collector

■ ORDERING INFORMATION

Order Number		Package	Packing
Normal	Lead free		
2SC4617-AE3-R	2SC4617L-AE3-R	SOT-23	Tape Reel

■ ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector -Base Voltage	$V_{CB0}$	60	V
Collector -Emitter Voltage	$V_{CEO}$	50	V
Emitter -Base Voltage	$V_{EBO}$	7	V
DC Collector Current	$I_C$	150	mA
Power Dissipation	$P_D$	150	mW
Operating Temperature	$T_J$	+150	°C
Storage Temperature	$T_{STG}$	-40 ~ +150	°C

■ ELECTRICAL CHARACTERISTICS (Ta= 25°C, unless otherwise specified)

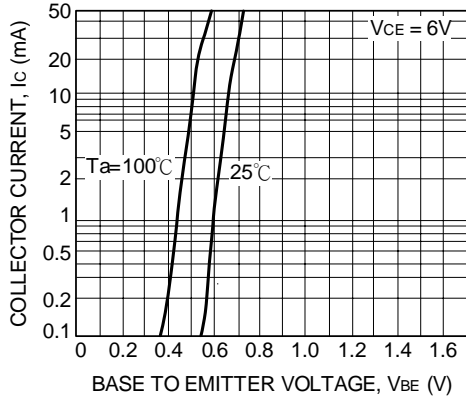
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Base Breakdown Voltage	$BV_{CB0}$	$I_C = 50 \mu A$	60			V
Collector Emitter Breakdown Voltage	$BV_{CEO}$	$I_C = 1mA$	50			V
Emitter-base Breakdown Voltage	$BV_{EBO}$	$I_E = 50 \mu A$	7			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB} = 60V$			0.1	$\mu A$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB} = 7V$			0.1	$\mu A$
DC Current Transfer Ratio	$h_{FE}$	$V_{CE} = 6V, I_C = 1mA$	120		560	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 50mA, I_B = 5mA$			0.4	V
Transition Frequency	$f_T$	$V_{CE} = 12V, I_E = -2mA, f = 100MHz$		180		MHz
Output Capacitance	$C_{ob}$	$V_{CE} = 12V, I_E = 0A, f = 1MHz$		2	3.5	pF

■ CLASSIFICATION OF  $h_{FE}$

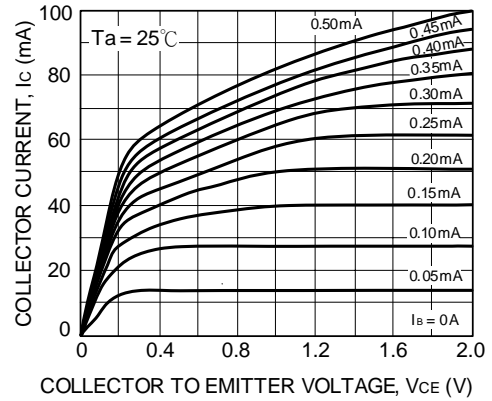
RANK	Q	R	S
RANGE	120 ~ 270	180 ~ 390	270 ~ 560

## ■ TYPICAL CHARACTERISTICS

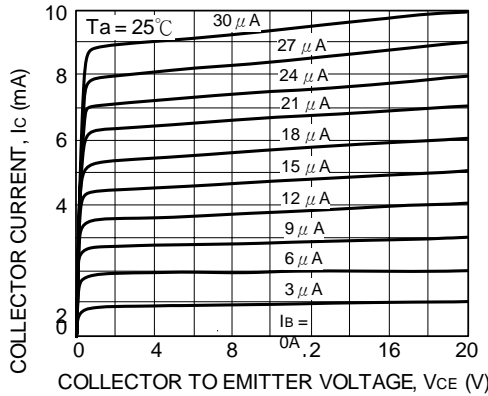
Grounded emitter propagation characteristics



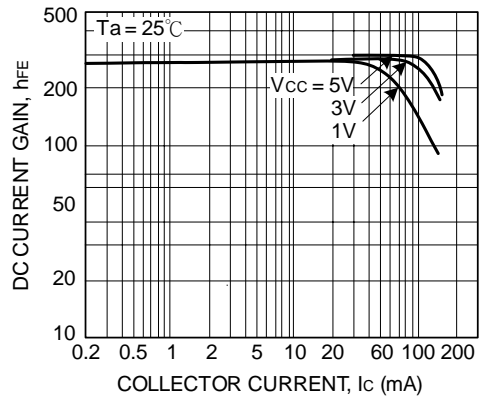
Grounded emitter output characteristics ( I )



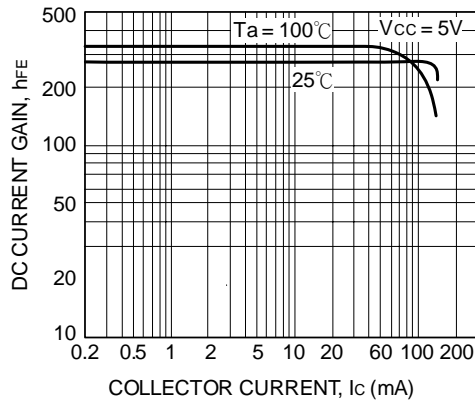
Grounded emitter output characteristics (  $\beta^0$  )



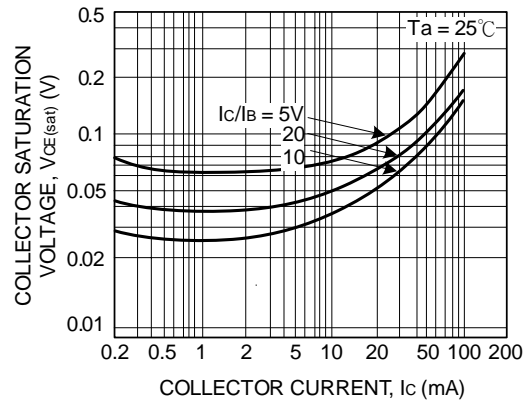
DC current gain vs. collector current ( I )



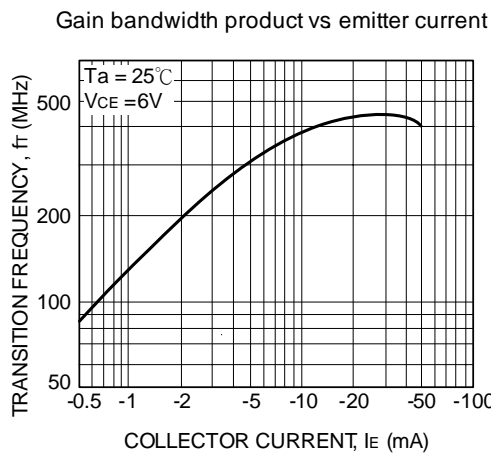
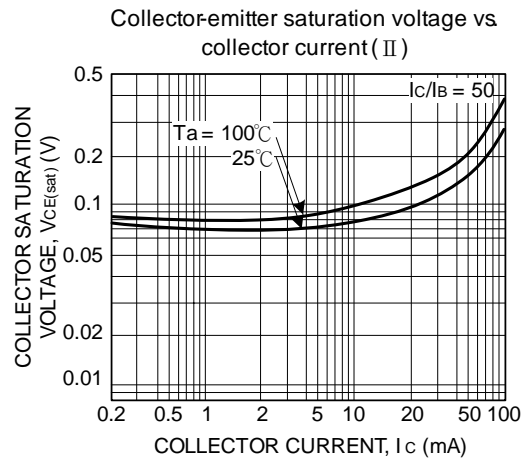
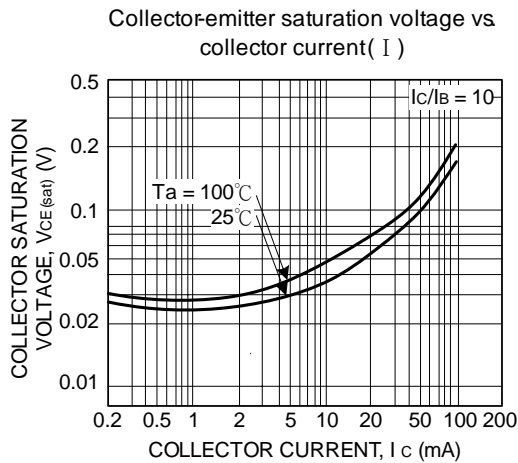
DC current gain vs. collector current ( II )



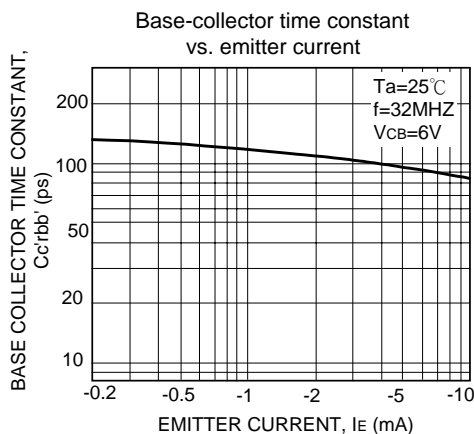
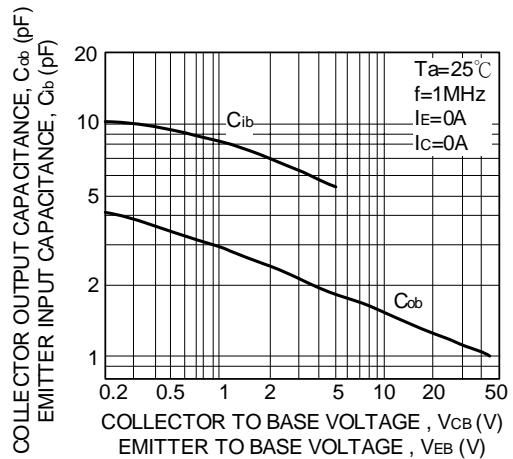
Collector-emitter saturation voltage vs collector current



## TYPICAL CHARACTERISTICS(cont.)



Collector output capacitance vs collector-base voltage  
Emitter input capacitance vs emitter-base voltage



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.