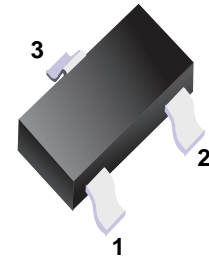


■ NPN Transistor



1.Base  
2.Emmitter  
3.Collector

■ Simplified outline(SOT-523)

■ Features

- Collector Current Capability  $I_c=0.15A$
- Collector Emitter Voltage  $V_{CE0}=50V$
- Low Cob:Cob=2.0pF(Typ)
- Complement to 2SA1774

■ Absolute Maximum Ratings  $T_a = 25^{\circ}C$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CBO}$	60	V
Collector - Emitter Voltage	$V_{CEO}$	50	
Emitter - Base Voltage	$V_{EBO}$	7	
Collector Current - Continuous	$I_c$	150	mA
Collector Power Dissipation	$P_c$	150	mW
Junction Temperature	$T_J$	150	$^{\circ}C$
Storage Temperature Range	$T_{stg}$	-55 to 150	

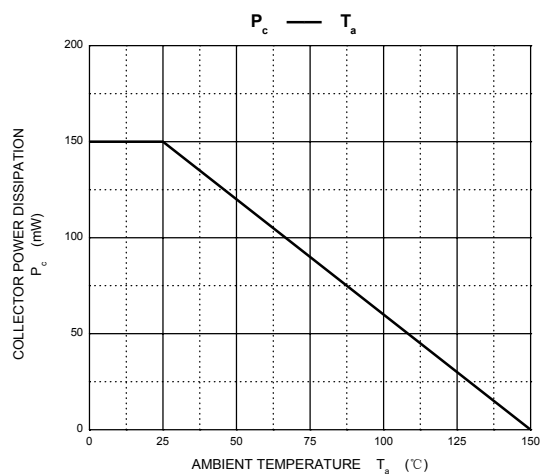
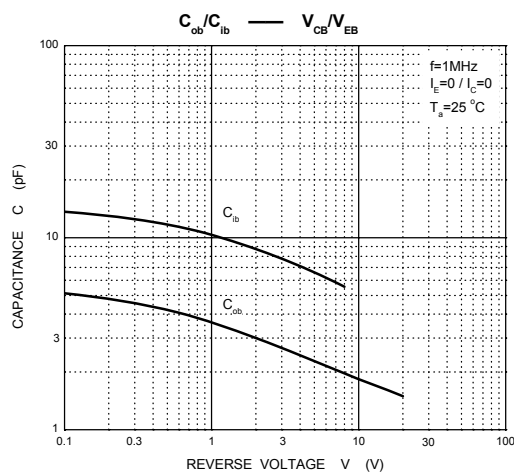
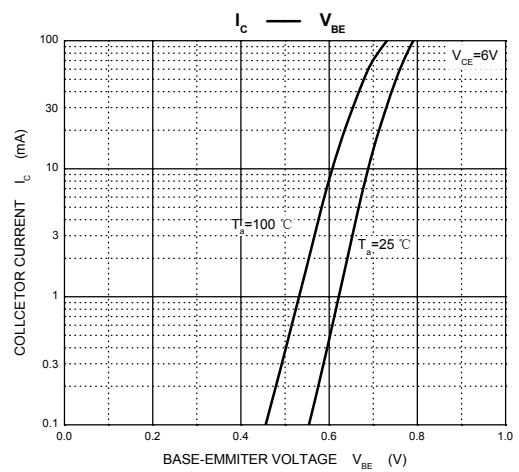
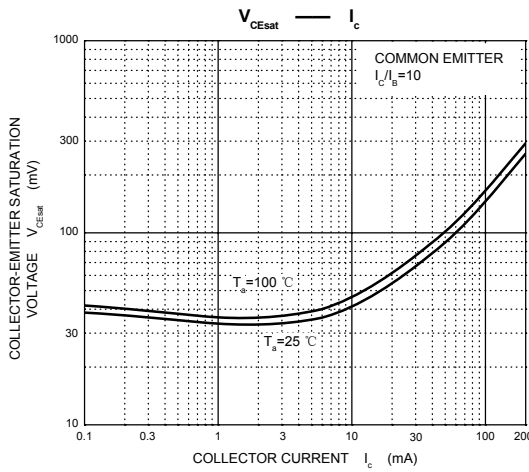
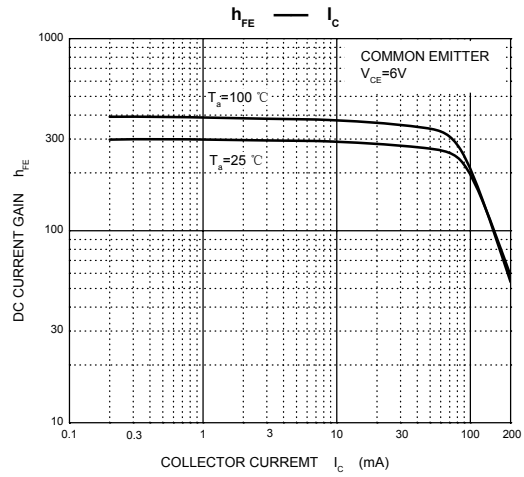
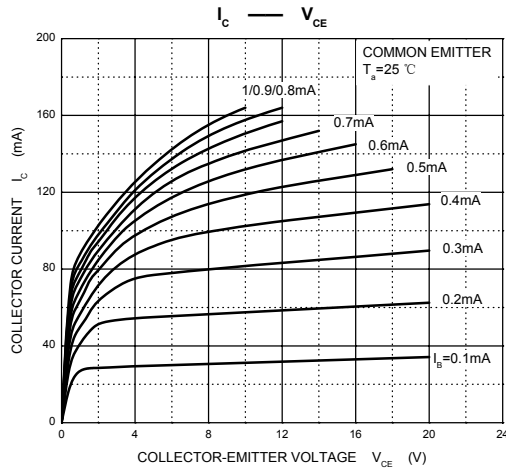
■ Electrical Characteristics  $T_a = 25^{\circ}C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CBO}$	$I_c = 100 \mu A, I_E = 0$	60			V
Collector- emitter breakdown voltage	$V_{CEO}$	$I_c = 1 mA, I_B = 0$	50			
Emitter - base breakdown voltage	$V_{EBO}$	$I_E = 100 \mu A, I_c = 0$	7			
Collector-base cut-off current	$I_{CBO}$	$V_{CB} = 60 V, I_E = 0$			100	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 7 V, I_c = 0$			100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = 50 mA, I_B = 5 mA$			0.4	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_c = 50 mA, I_B = 5 mA$			1.2	
DC current gain	$h_{FE}$	$V_{CE} = 6V, I_c = 1mA$	120		560	
Collector output capacitance	$C_{ob}$	$V_{CB} = 12V, I_E = 0, f = 1MHz$			3.5	pF
Transition frequency	$f_T$	$V_{CE} = 12V, I_c = 2mA, f = 100MHz$		180		MHz

■ Classification of  $h_{fe}$

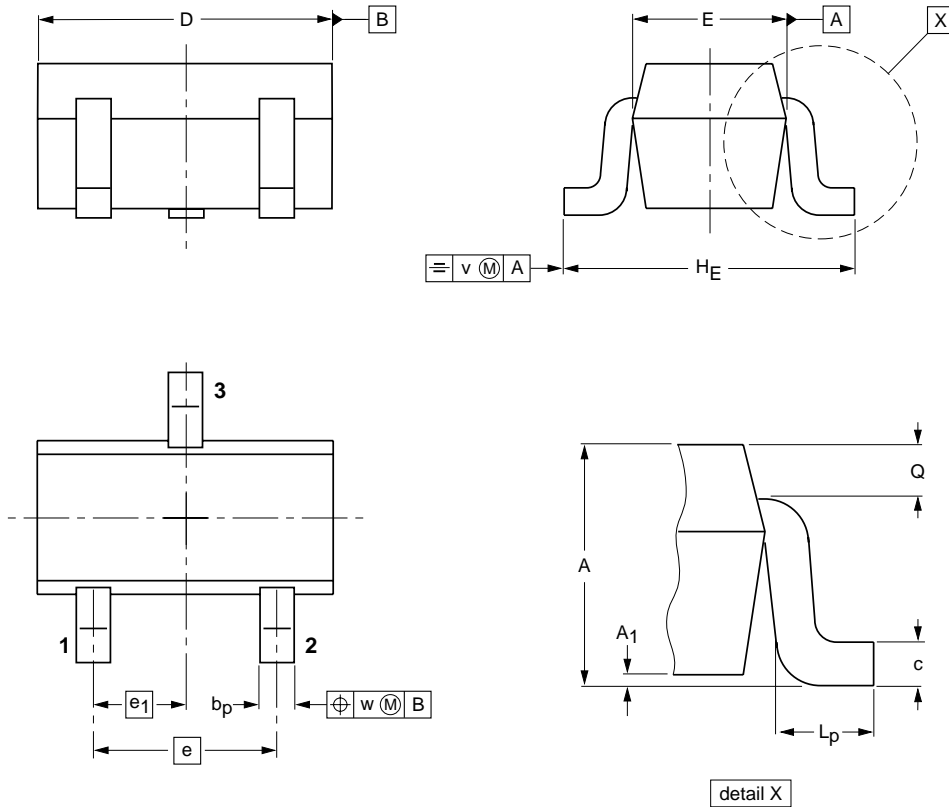
Marking	2SC4617-Q	2SC4617-R	2SC4617-S
Marking	120-270	180-390	270-560
Marking	BQ	BR	BS

■ Typical Characteristics



**Package Outline**

**SOT-523**



**DIMENSIONS (mm are the original dimensions)**

UNIT	A	A <sub>1</sub> max	bp	c	D	E	e	e <sub>1</sub>	H <sub>E</sub>	L <sub>p</sub>	Q	v	w
mm	0.95 0.60	0.1	0.30 0.15	0.25 0.10	1.8 1.4	0.9 0.7	1	0.5	1.75 1.45	0.45 0.15	0.23 0.13	0.2	0.2

**Summary of Packing Options**

Package	Packing Description	Packing Quantity	Industry Standard
SOT-523	Tape/Reel, 7" reel	3000	EIA-481-1