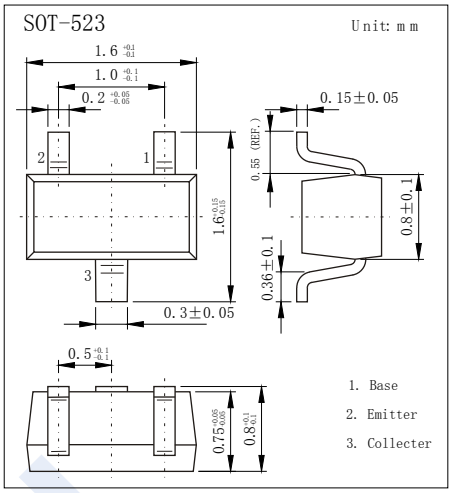
NPN Transistors

2SC4617



■ Features

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

■ Absolute Maximum Ratings Ta = 25℃

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	℃
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= 100 μA, 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 μ 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}= 7V , I_C=0			100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=50 mA, I_B=5mA			0.4	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=50 mA, I_B=5mA			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

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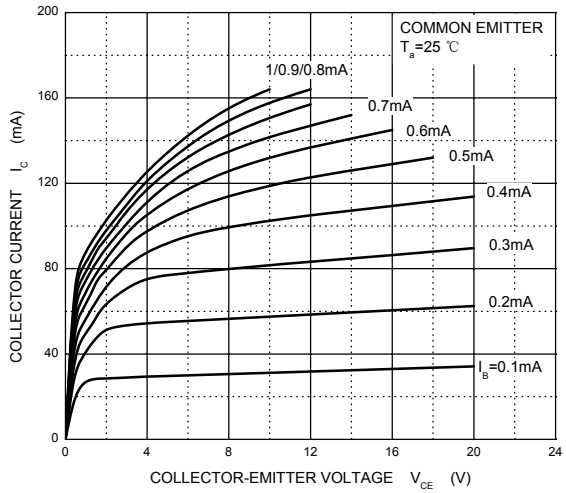
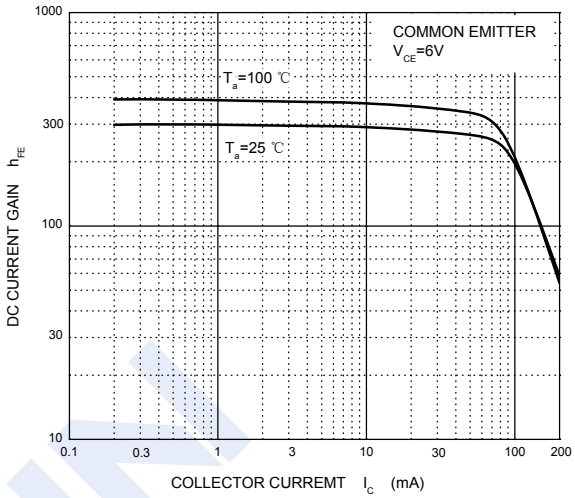
■ Typical Characterisitics

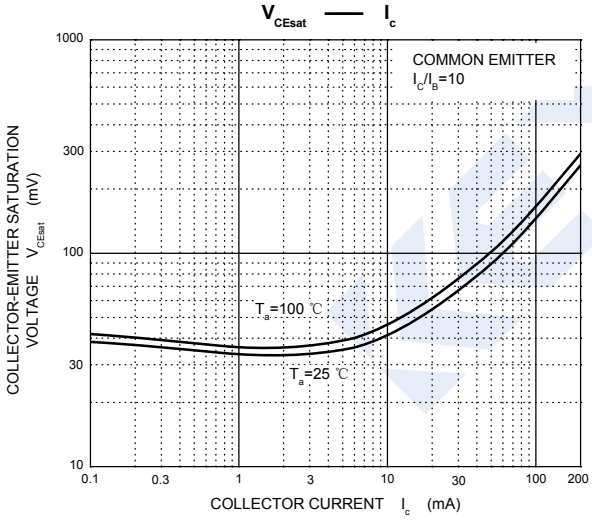
I_C — V_{CE}



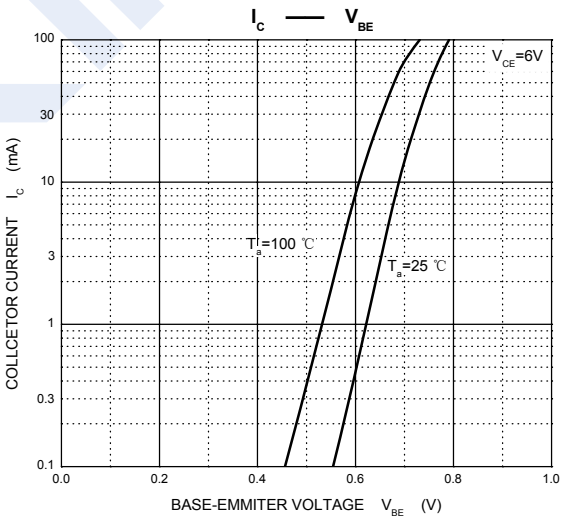
h_{FE} — I_C



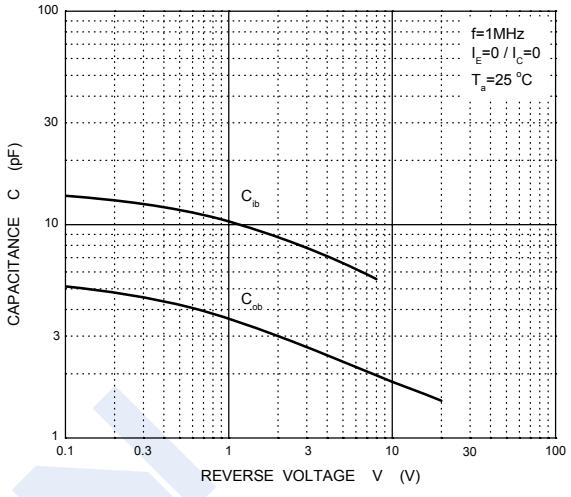
V_{CEsat} — I_c



I_C — V_{BE}



C_{ob}/C_{ib} — V_{CB}/V_{EB}



P_c — T_a