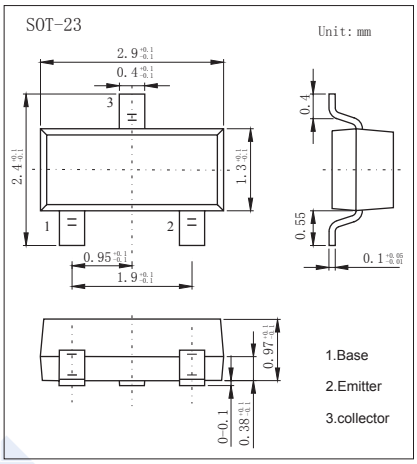
NPN Transistors

2SC4577



■ Features

- Collector Current Capability I_C=500mA
- Collector Emitter Voltage V_{CEO}=15V
- Complement to 2SA1753

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	20	V
Collector - Emitter Voltage	V_{CEO}	15	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	500	mA
Collector Current - Pulse	I_{CP}	1	A
Collector Power Dissipation	P_C	200	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	20			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 1 mA, I_B= 0	15			
Emitter - base breakdown voltage	V_{EBO}	I_E= 100 μ A, I_C= 0	5			
Collector-base cut-off current	I_{CBO}	V_{CB}= 15 V , I_E= 0			0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= 4V , I_C=0			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=5mA, I_B=0.5mA			0.03	V
		I_C=200mA, I_B=10mA			0.3	
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=200mA, I_B=10mA			1.2	
DC current gain	h_{FE}	V_{CE}= 2V, I_C= 10mA	135		600	
		V_{CE}= 2V, I_C= 400mA	80			
Collector output capacitance	C_{ob}	V_{CB}= 10V,f=1MHz		4		pF
Transition frequency	f_T	V_{CE}= 2V, I_C=50mA		300		MHz

■ Classification of $h_{fe(1)}$

Type	2SC4577-UT5	2SC4577-UT6	2SC4577-UT7
Range	135-270	200-400	300-600
Marking	UT5	UT6	UT7

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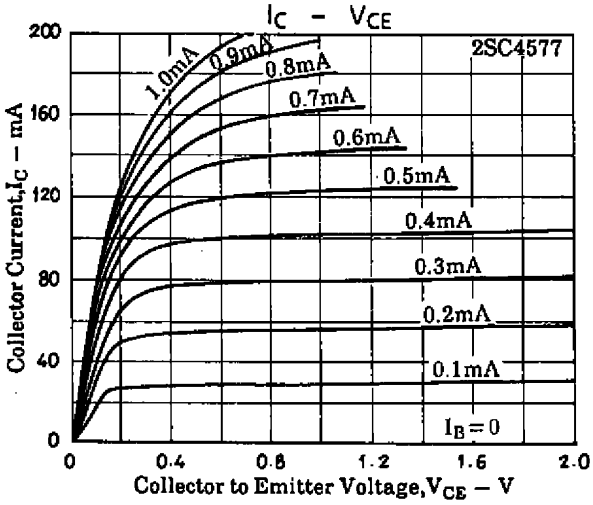
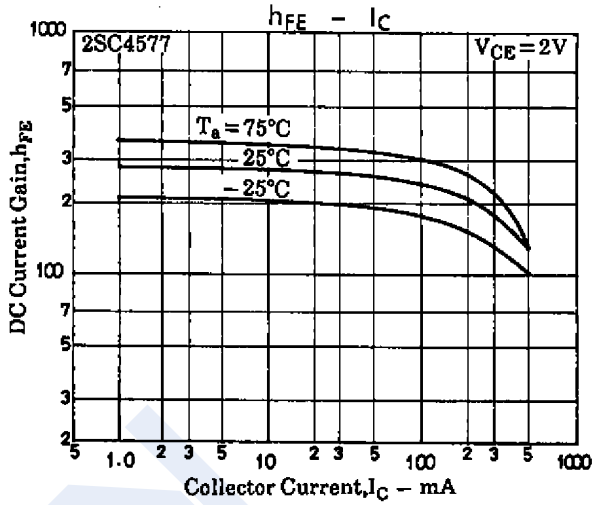
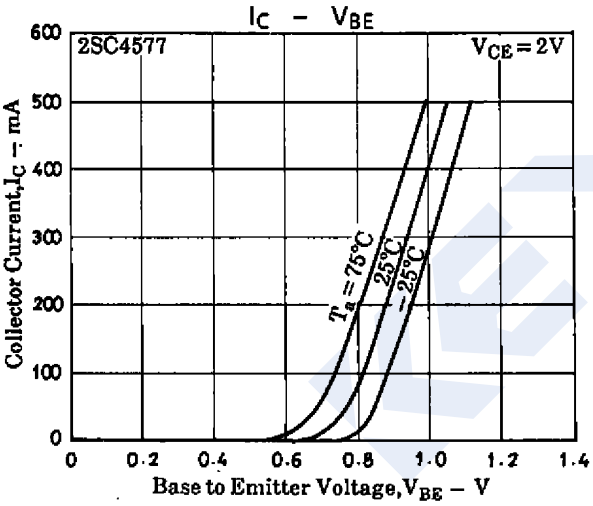
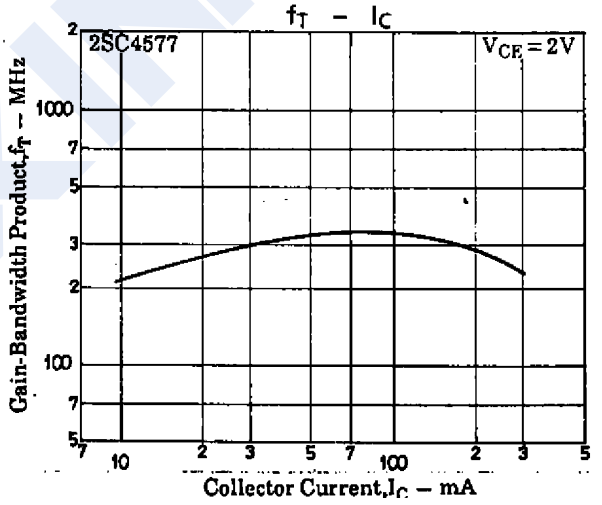
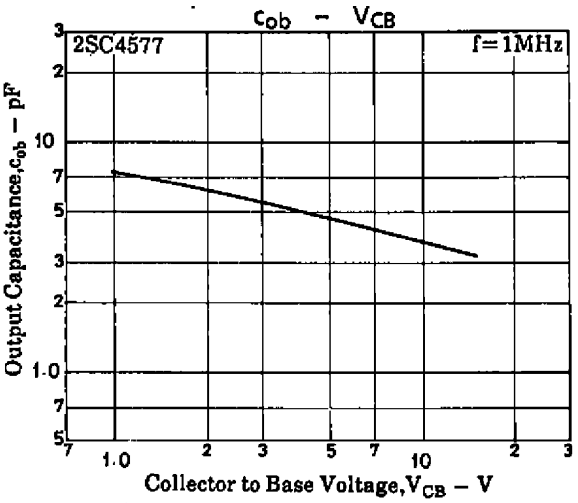
■ Typical Characterisitics

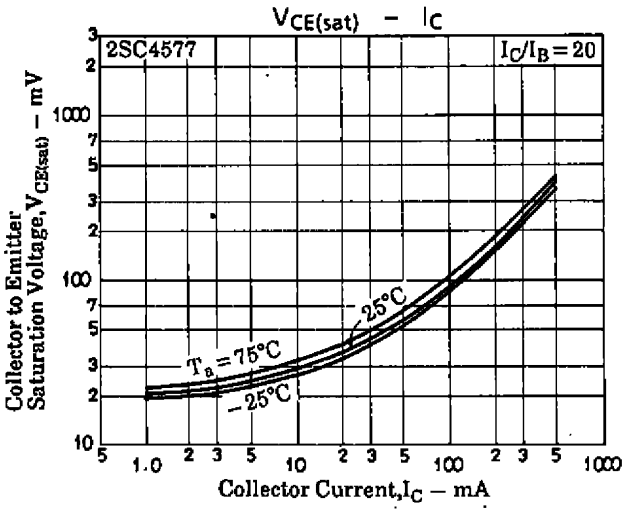












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■ Typical Characterisitics