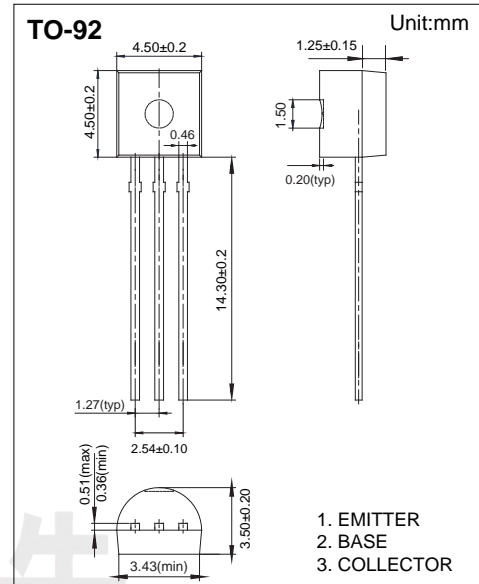


Transistor

NPN Transistor S9018

■ Features

- High Current Gain Bandwidth Product



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	25	V
Collector - Emitter Voltage	V_{CE0}	18	
Emitter - Base Voltage	V_{EB0}	4	
Collector Current - Continuous	I_c	50	mA
Collector Power Dissipation	P_c	0.4	W
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	312.5	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to 150	

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_c = 100 \mu\text{A}, I_E = 0$	25			V
Collector- emitter breakdown voltage	V_{CE0}	$I_c = 0.1 \text{ mA}, I_B = 0$	18			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 100 \mu\text{A}, I_c = 0$	4			
Collector cut-off current	I_{CB0}	$V_{CB} = 20 \text{ V}, I_E = 0$			0.1	μA
Collector cut-off current	I_{CE0}	$V_{CB} = 15 \text{ V}, I_B = 0$			0.1	
Emitter cut-off current	I_{EB0}	$V_{EB} = 3 \text{ V}, I_c = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = 10 \text{ mA}, I_B = 1 \text{ mA}$			0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_c = 10 \text{ mA}, I_B = 1 \text{ mA}$			1.42	
DC current gain	h_{FE}	$V_{CE} = 5 \text{ V}, I_c = 1 \text{ mA}$	28		270	
Transition frequency	f_T	$V_{CE} = 5 \text{ V}, I_c = 50 \text{ mA}, f = 400 \text{ MHz}$		800		MHz

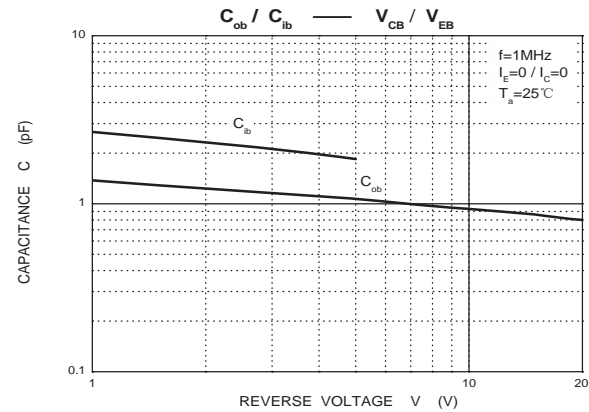
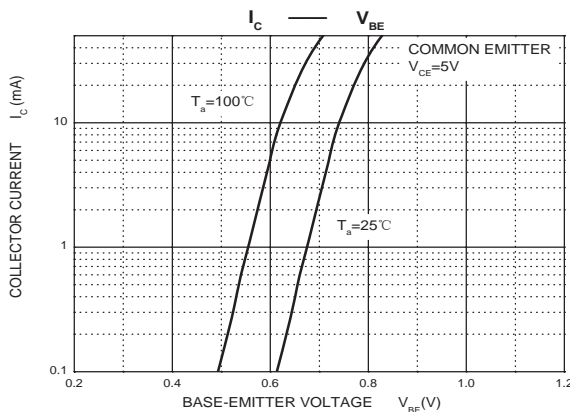
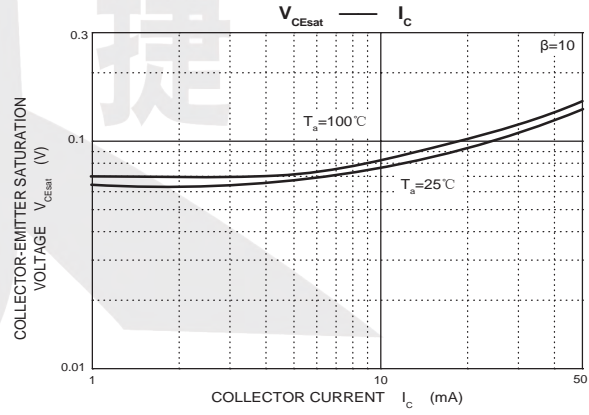
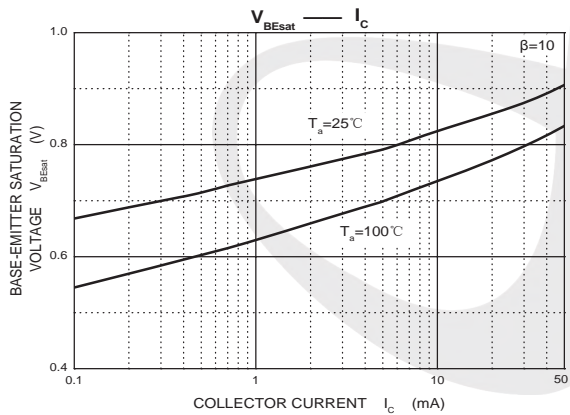
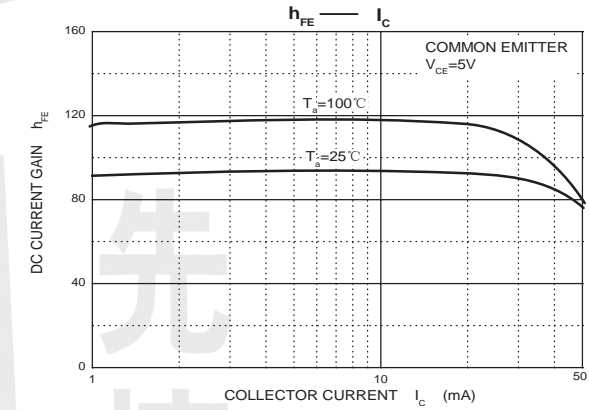
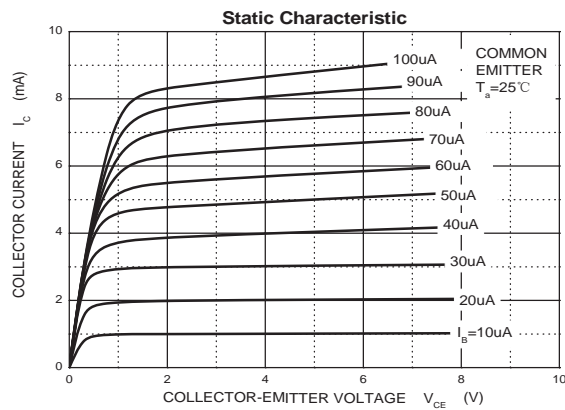
Transistor

NPN Transistor S9018

Classification of hFE

Rank	D	E	F	G	H	I	J
Range	28-45	39-60	54-80	72-108	97-146	132-198	180-270

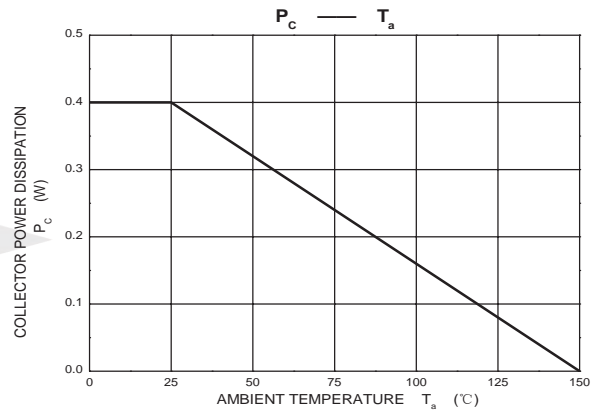
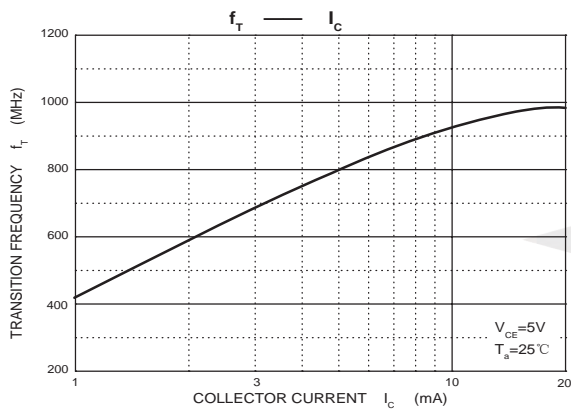
Typical Characteristics



Transistor

NPN Transistor S9018

■ Typical Characteristics



先捷