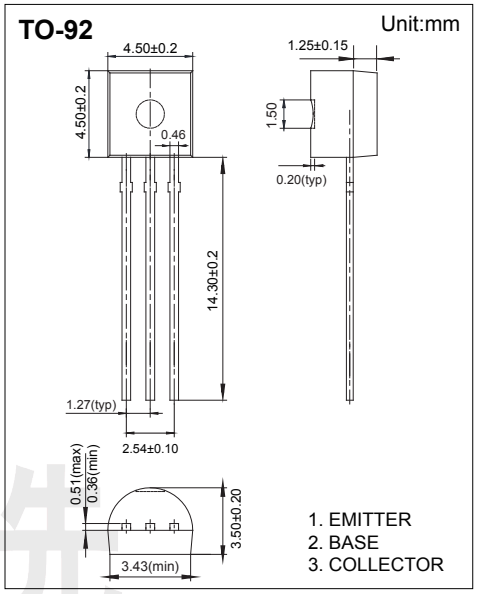
NPN General Purpose Transistor

BC337



■ Features

- High current (max. 500 mA)
- Low voltage (max. 45 V).

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	50	V
Collector - Emitter Voltage	V_{CEO}	45	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	500	mA
Peak Collector Current	I_{CM}	1	A
Peak Base Current	I_{BM}	200	mA
Collector Power Dissipation	P_C	625	mW
Thermal Resistance From Junction to Ambient	$R_{\theta JA}$	0.2	K/mW
Junction Temperature	T_J	150	℃
Operating Ambient Temperature	T_{amb}	-65 to 150	
Storage Temperature range	T_{stg}	-65 to 150	

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■ Electrical Characteristics Ta = 25℃

Parameter		Symbol	Testconditons	Min	Typ	Max	Unit
Collecto- base breakdown voltage		V_{CBO}	I_C= 100 μA， I_E=0	50			V
Collector- emitter breakdown voltage		V_{CEO}	I_C= 1 mA， I_B=0	45			
Emitter - base breakdown voltage		V_{EBO}	I_E= 100 μA， I_C=0	5			
Collector-base cut-off current		I_{CBO}	V_{CB}= 20 V , I_E=0			100	nA
			V_{CB}= 20 V , I_E=0 , T_J = 25℃			5	μA
Emitter cut-off current		I_{EBO}	V_{EB}= 5V , I_C=0			100	nA
Collector-emitter saturation voltage		$V_{CE(sat)}$	I_C=500 mA, I_B=50mA			0.7	V
Base - emitter saturation voltage		$V_{BE(sat)}$	I_C=500 mA, I_B=50mA			1.2	
Base - emitter voltage		V_{BE}	I_C = 500 mA, V_{CE} = 1V			1.2	
DC current gain	BC337	$h_{FE(1)}$	V_{CE}= 1V, I_C=100mA	100		600	
	BC337-16			100		250	
	BC337-25			160		400	
	BC337-40			250		600	
DC current gain		$h_{FE(2)}$	V_{CE}= 1V, I_C=500mA see Figs 1, 2 and 3	40			
Collector capacitance		C_{ob}	I_E=i_e=0,V_{CB}=10V,f=1MHz		10		pF
Transition frequency		f_T	V_{CE}= 5V, I_C= 10mA,f=100MHz	100			MHz

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■ Typical Characterisitics

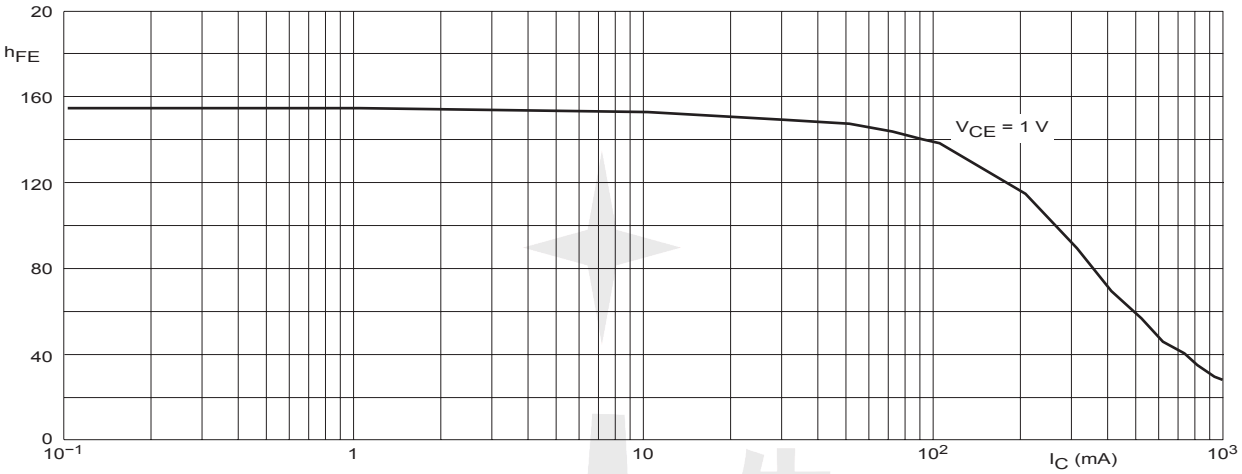

Fig.1 DC current gain; typical values.

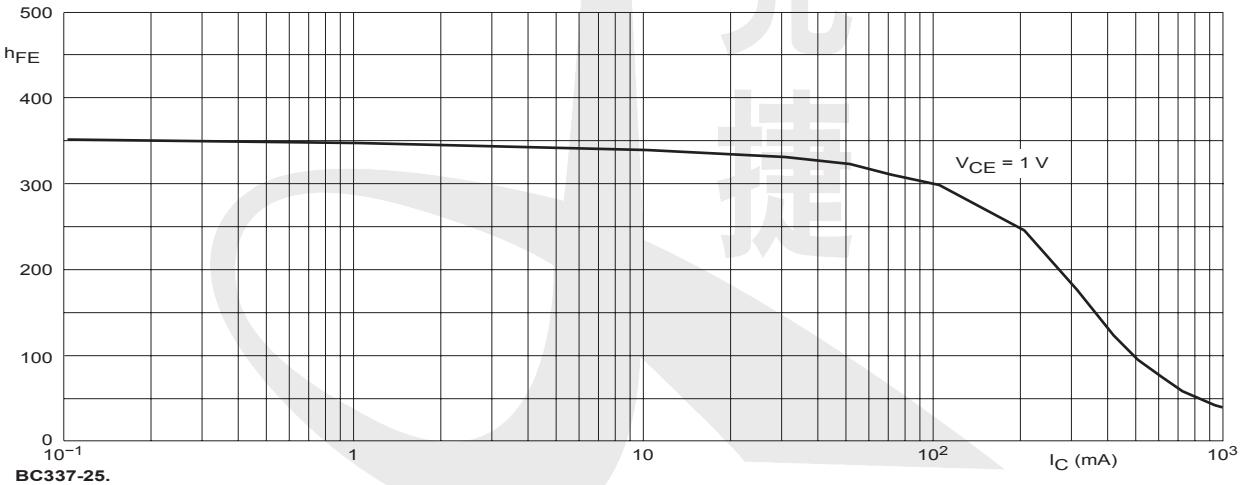

Fig.2 DC current gain; typical values.

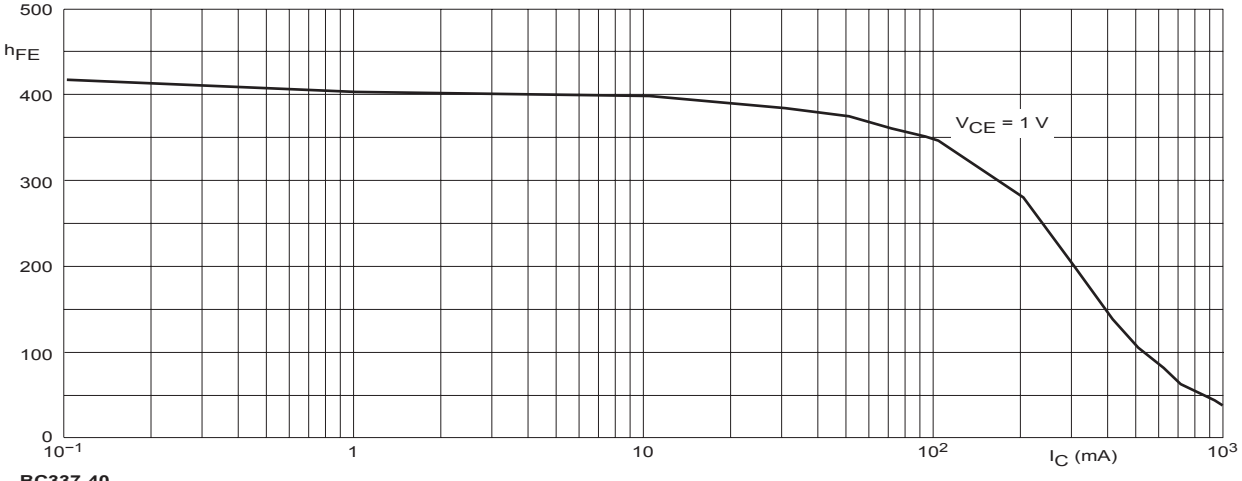

Fig.3 DC current gain; typical values.