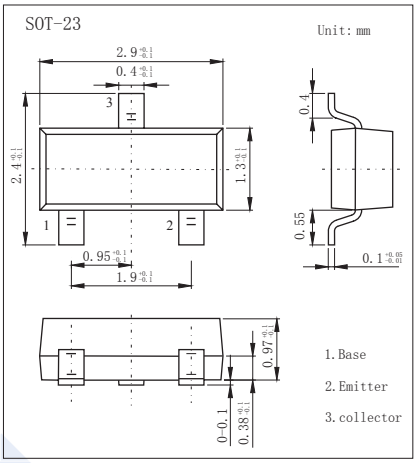
NPN Transistors

2SC3437



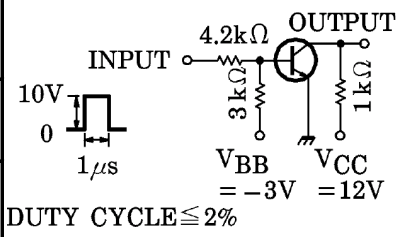
■ Features

- Collector Current Capability I_C=200mA
- Collector Emitter Voltage V_{CEO}=15V

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	40	V
Collector - Emitter Voltage	V_{CEO}	15	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	200	mA
Base Current	I_B	40	
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_J	125	℃
Storage Temperature Range	T_{stg}	-55 to 125	

■ 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	40			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}= 40V , I_E= 0			0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= 5V , I_C=0			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=20 mA, I_B=1mA			0.3	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=20 mA, I_B=1mA			1	
DC current gain	h_{FE}	V_{CE}= 1V, I_C= 10mA	40		240	
		V_{CE}= 1V, I_C= 100mA	20			
Turn-on time	t_{on}			70		ns
Storage time	t_{stg}			15		
Fall time	t_f			30		
Collector output capacitance	C_{ob}	V_{CB}= 10V,I_E=0,f=1MHz			6	pF
Transition frequency	f_T	V_{CE}= 10V, I_C=10mA	200			MHz

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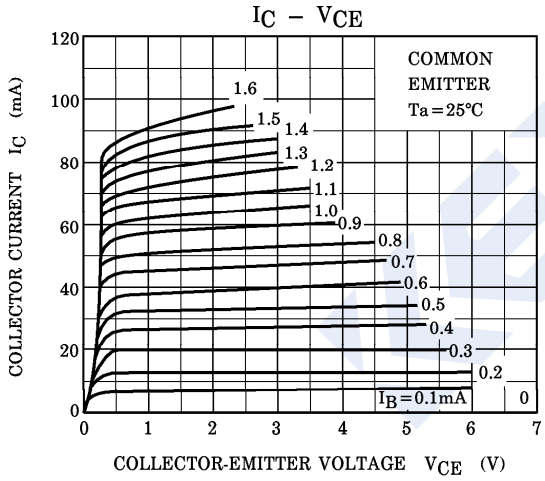
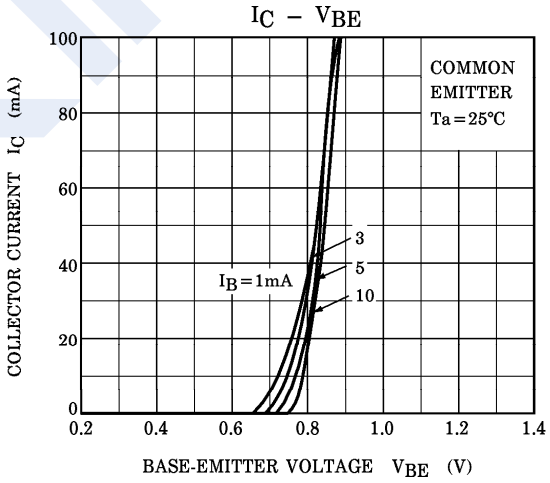
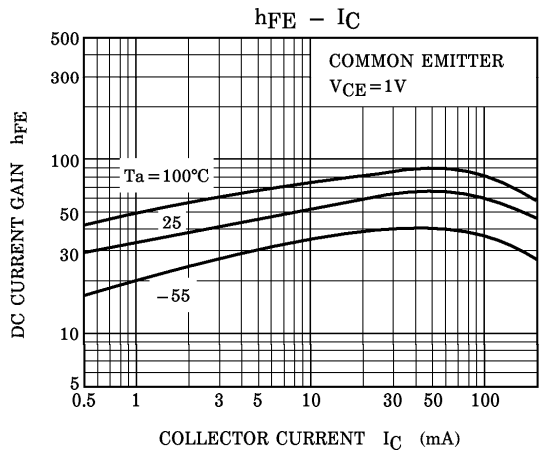
■ Classification of $h_{fe(1)}$

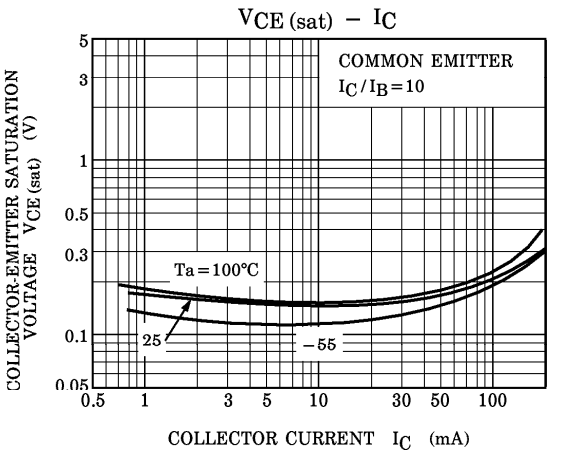
Type	2SC3437-R	2SC3437-O	2SC3437-Y
Range	40-80	70-140	120-240
Marking	CH R	CH O	CHY

■ Typical Characterisitics









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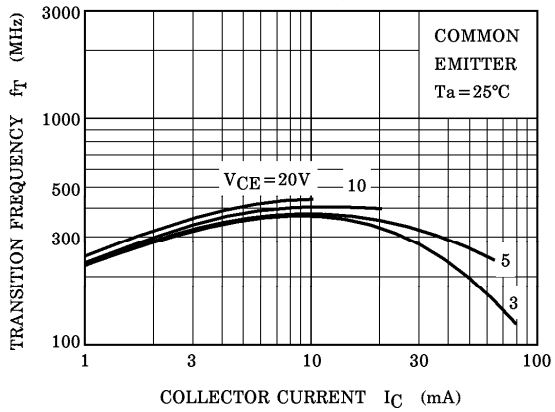
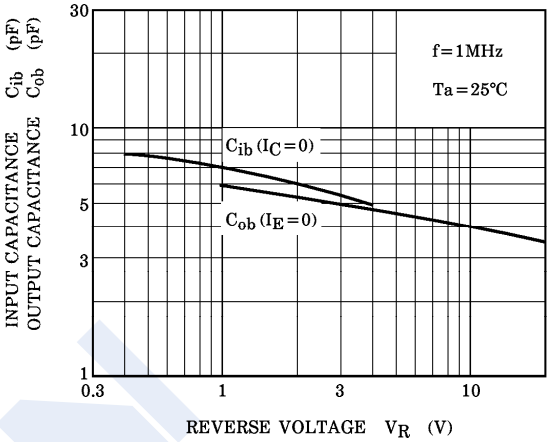
■ Typical Characterisitics

f_T – I_C



C_{ib}, C_{ob} – V_R



P_C – Ta