

BC337...BC338

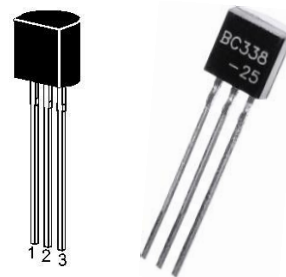
NPN Silicon Epitaxial Planar Transistor

FEATURES

For switching and amplifier applications

These types are subdivided into three groups -16,

-25 and -40, according to their DC current gain.



1. Collector 2. Base 3. Emitter

TO-92 Plastic Package

MAXIMUM RATINGS AND CHARACTERISTICS

Absolute Maximum Ratings (Ta = 25°C)

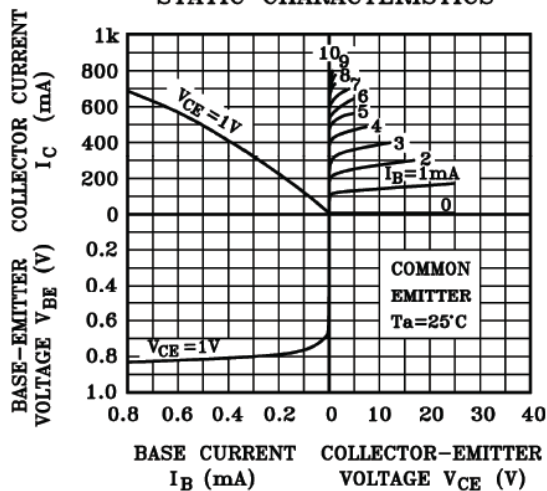
PARAMETER	SYMBOL	BC337	BC338	UNIT
Collector Base Voltage	V_{CBO}	50	30	V
Collector Emitter Voltage	V_{CEO}	45	25	V
Emitter Base Voltage	V_{EBO}	5		V
Collector Current	I_C	800		mA
Peak Collector Current	I_{CM}	1		A
Total Power Dissipation	P_{tot}	625		mW
Junction Temperature	T_j	150		°C
Storage Temperature Range	T_{stg}	-55 to +150		°C

Characteristics at Ta = 25°C

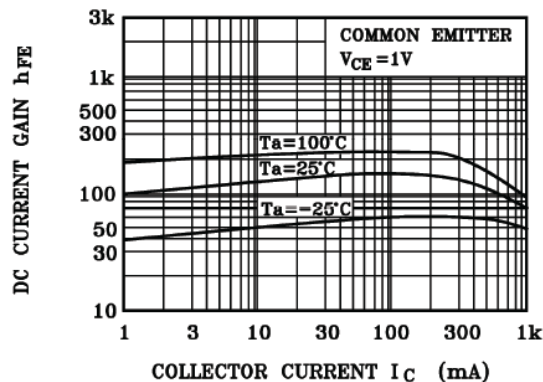
Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $V_{CE} = 1$ V, $I_C = 100$ mA Current Gain Group	-16	h_{FE}	100	-	250	-
	-25	h_{FE}	160	-	400	-
	-40	h_{FE}	250	-	630	-
at $V_{CE} = 1$ V, $I_C = 300$ mA	h_{FE}	60	-	-	-	
Collector Base Cutoff Current at $V_{CB} = 50$ V	BC337	I_{CBO}	-	-	100	nA
	BC338		-	-	100	
Collector Base Breakdown Voltage at $I_C = 100$ μ A	BC337	$V_{(BR)CBO}$	50	-	-	V
	BC338		30	-	-	
Collector Emitter Breakdown Voltage at $I_C = 2$ mA	BC337	$V_{(BR)CEO}$	45	-	-	V
	BC338		25	-	-	
Emitter Base Breakdown Voltage at $I_E = 100$ μ A	$V_{(BR)EBO}$	5	-	-	V	
Collector Emitter Saturation Voltage at $I_C = 500$ mA, $I_B = 50$ mA	$V_{CE(sat)}$	-	-	0.7	V	
Base Emitter On Voltage at $V_{CE} = 1$ V, $I_C = 300$ mA	$V_{BE(on)}$	-	-	1.2	V	
Gain Bandwidth Product at $V_{CE} = 5$ V, $I_C = 10$ mA, $f = 50$ MHz	f_T	-	100	-	MHz	
Collector Base Capacitance at $V_{CB} = 10$ V, $f = 1$ MHz	C_{cbo}	-	12	-	pF	

RATINGS AND CHARACTERISTIC CURVES BC337...BC338

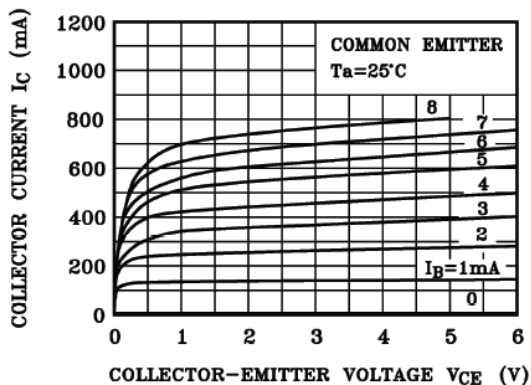
STATIC CHARACTERISTICS



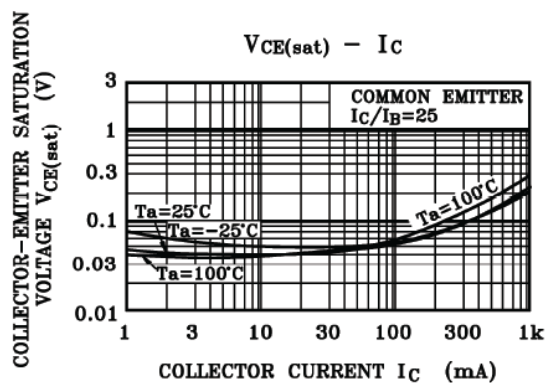
$h_{FE} - I_C$



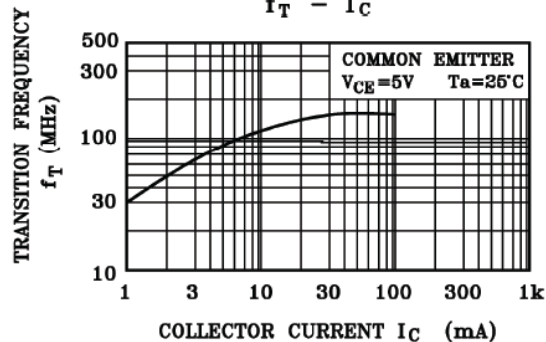
$I_C - V_{CE}$ (LOW VOLTAGE REGION)



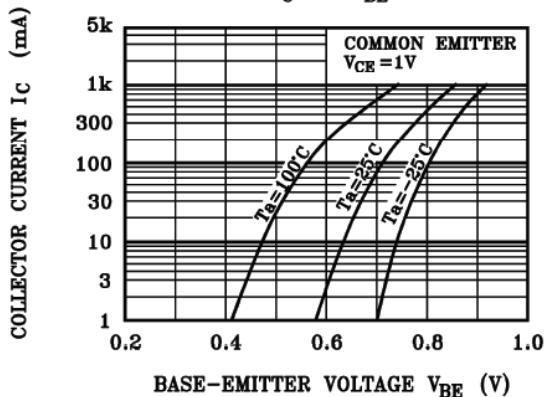
$V_{CE(sat)} - I_C$



$f_T - I_C$



$I_C - V_{BE}$



$P_C - T_a$

