

TO-92 Plastic-Encapsulate Transistors

BC337/BC338 TRANSISTOR (NPN)

FEATURES

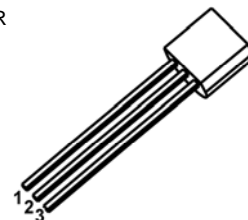
- Power dissipation

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage BC337	50	V
	BC338	30	
V _{CEO}	Collector-Emitter Voltage BC337	45	V
	BC338	25	
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current -Continuous	800	mA
P _D	Total Device Dissipation	625	mW
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C

TO-92

1. COLLECTOR
2. BASE
3. EMITTER



ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage BC337 BC338	V _{CBO}	I _C = 100uA, I _E =0	50			V
			30			V
Collector-emitter breakdown voltage BC337 BC338	V _{CEO}	I _C = 10mA, I _B =0	45			V
			25			V
Emitter-base breakdown voltage	V _{EBO}	I _E = 10uA, I _C =0	5			V
Collector cut-off current BC337 BC338	I _{CBO}	V _{CB} = 45V, I _E =0 V _{CB} = 25V, I _E =0			0.1	uA
					0.1	uA
Collector cut-off current BC337 BC338	I _{CEO}	V _{CE} = 40V, I _B =0 V _{CE} = 20V, I _B =0			0.2	uA
					0.2	uA
Emitter cut-off current	I _{EBO}	V _{EB} = 4 V, I _C =0			0.1	uA
DC current gain BC337/BC338 BC337-16/BC338-16 BC337-25/BC338-25 BC337-40/BC338-40	h _{FE(1)}	V _{CE} =1V, I _C = 100mA	100		630	
			100		250	
			160		400	
			250		630	
DC current gain	h _{FE(2)}	V _{CE} =1V, I _C = 300mA	60			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =500mA, I _B = 50mA			0.7	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C = 500mA, I _B =50mA			1.2	V
Base-emitter voltage	V _{BE}	V _{CE} =1V, I _C = 300mA			1.2	V
Transition frequency	f _T	V _{CE} = 5V, I _C = 10mA f = 100MHz	210			MHz
Collector Output Capacitance	C _{ob}	V _{CB} =10V, I _E =0 f=1MHz		15		pF