

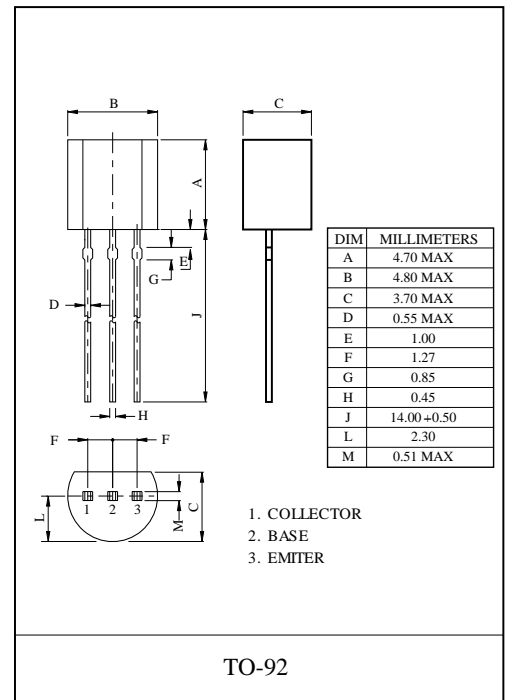
BC337/BC338 TRANSISTOR (NPN)

FEATURES

- High Current : $I_C=800\text{mA}$.
- DC Current Gain : $h_{FE}=100\sim 630$ ($V_{CE}=1\text{V}$, $I_C=100\text{mA}$).
- For Complementary with PNP type BC327.

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ 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	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55-150	$^\circ\text{C}$



ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V_{CBO}	$I_C=100\mu\text{A}$, $I_E=0$	BC337			V
			BC338	50		V
Collector-emitter breakdown voltage	V_{CEO}	$I_C=10\text{mA}$, $I_B=0$	BC337			V
			BC338	45		V
Emitter-base breakdown voltage	V_{EBO}	$I_E=10\mu\text{A}$, $I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=45\text{V}$, $I_E=0$ $V_{CB}=25\text{V}$, $I_E=0$	BC337		0.1	μA
			BC338		0.1	
Collector cut-off current	I_{CEO}	$V_{CE}=40\text{V}$, $I_B=0$ $V_{CE}=20\text{V}$, $I_B=0$	BC337		0.2	μA
			BC338		0.2	
Emitter cut-off current	I_{EBO}	$V_{EB}=4\text{V}$, $I_C=0$			0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=1\text{V}$, $I_C=100\text{mA}$	BC337/BC338	100	630	
			BC337-16/BC338-16	100	250	
			BC337-25/BC338-25	160	400	
			BC337-40/BC338-40	250	630	
DC current gain	$h_{FE(2)}$	$V_{CE}=1\text{V}$, $I_C=300\text{mA}$	60			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500\text{mA}$, $I_B=50\text{mA}$			0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=500\text{mA}$, $I_B=50\text{mA}$			1.2	V
Base-emitter voltage	V_{BE}	$V_{CE}=1\text{V}$, $I_C=300\text{mA}$			1.2	V
Transition frequency	f_T	$V_{CE}=5\text{V}$, $I_C=10\text{mA}$ $f=100\text{MHz}$	210			MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10\text{V}$, $I_E=0$ $f=1\text{MHz}$		15		pF