

TO-92 Plastic-Encapsulate Transistors

TRANSISTOR (NPN)

Features:

Power dissipation

$$P_{CM}: 0.625 \text{ W (Tamb=25°C)}$$

Collector current

$$I_{CM}: 0.8 \text{ A}$$

Collector-base voltage

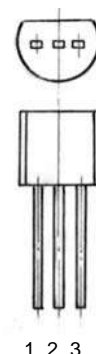
$$V_{CBO}: \begin{matrix} \text{BC337} & 50 & \text{V} \\ \text{BC338} & 30 & \text{V} \end{matrix}$$

Operating and storage junction temperature range

$$T_J, T_{stg}: -55^\circ\text{C to } +150^\circ\text{C}$$

TO-92

- 1. COLLECTOR
- 2. BASE
- 3. EMITTER



ELECTRICAL CHARACTERISTICS (Tamb=25°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	50		V	
	BC338		30		V		
Collector-emitter breakdown voltage	V_{CEO}	$I_C = 10 \text{ mA}, I_B = 0$					
			BC337	45		V	
	BC338		25		V		
Emitter-base breakdown voltage	V_{EBO}	$I_E = 10\mu\text{A}, I_C = 0$				V	
Collector cut-off current	I_{CBO}	$V_{CB} = 45 \text{ V}, I_E = 0$			0.1	μA	
			BC338			0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = 40 \text{ V}, I_B = 0$			0.2	μA	
			BC338			0.2	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 4 \text{ V}, I_C = 0$			0.1	μA	
DC current gain	$h_{FE(1)}$	$V_{CE} = 1 \text{ V}, I_C = 100 \text{ mA}$			100	630	
			BC337/BC338			100	250
			BC337-16/BC338-16			160	400
			BC337-25/BC338-25			250	630
	$H_{FE(2)}$	$V_{CE} = 1 \text{ V}, I_C = 300 \text{ mA}$	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	
Transition frequency	f_T	$V_{CE} = 5 \text{ V}, I_C = 10 \text{ mA}$ $f = 100 \text{ MHz}$	210			MHz	