



DONGGUAN NANJING ELECTRONICS LTD.,

TO-92 Plastic-Encapsulate Transistors

BC337,-16,-25,-40 TRANSISTOR (NPN)

BC338, -16,-25,-40

FEATURES

Power dissipation

P_{CM} : 0.625 W ($T_{amb}=25^{\circ}C$)

Collector current

I_{CM} : 0.8 A

Collector-base voltage

V_{CBO} : BC337 50 V
BC338 30 V

Operating and storage junction temperature range

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

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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V_{CBO}	$I_C=100\mu A, I_E=0$				
BC337			50			V
BC338			30			V
Collector-emitter breakdown voltage		$I_C=10\text{ mA}, I_B=0$				
BC337	V_{CEO}		45			V
BC338			25			V
Emitter-base breakdown voltage	V_{EBO}	$I_E=10\mu A, I_C=0$	5			V
Collector cut-off current	I_{CBO}					
BC337		$V_{CB}=45\text{ V}, I_E=0$			0.1	μA
BC338		$V_{CB}=25\text{ V}, I_E=0$			0.1	μA
Collector cut-off current						
BC337	I_{CEO}	$V_{CE}=40\text{ V}, I_B=0$			0.2	μA
BC338		$V_{CE}=20\text{ V}, I_B=0$			0.2	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4\text{ V}, I_C=0$			0.1	μA
DC current gain						
BC337/BC338	$h_{FE(1)}$	$V_{CE}=1\text{ V}, I_C=100\text{ mA}$	100		630	
BC337-16/BC338-16			100		250	
BC337-25/BC338-25			160		400	
BC337-40/BC338-40			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

