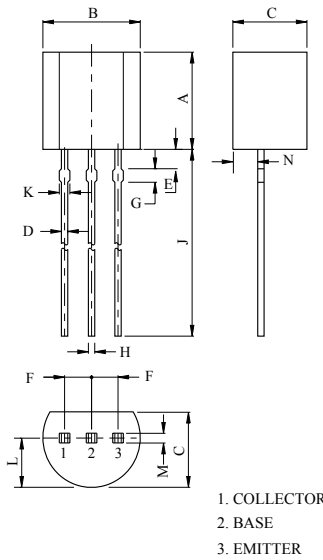
BC237/8/9

EPITAXIAL PLANAR NPN TRANSISTOR

GENERAL PURPOSE APPLICATION.
LOW NOISE AMPLIFIER APPLICATION.

FEATURES

· High Voltage : BC237 V_{CEO}=45V.
· Low Noise : BC239 NF=0.2dB(Typ.), 3dB(Max.)
(V_{CE}=6V, I_C=0.1mA, f=1kHz).
· For Complementary With PNP type BC307/308/309.



DIM	MILLIMETERS
A	4.70 MAX
B	4.80 MAX
C	3.70 MAX
D	0.45
E	1.00
F	1.27
G	0.85
H	0.45
J	14.00±0.50
K	0.55 MAX
L	2.30
M	0.45 MAX
N	1.00

1. COLLECTOR
2. BASE
3. EMITTER

TO-92

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage	BC237	V_{CBO}	50	V
	BC238		30	
	BC239		30	
Collector-Emitter Voltage	BC237	V_{CEO}	45	V
	BC238		20	
	BC239		20	
Emitter-Base Voltage	BC237	V_{EBO}	6	V
	BC238		5	
	BC239		5	
Collector Current	BC237	I_C	100	mA
	BC238		100	
	BC239		50	
Emitter Current	BC237	I_E	-100	mA
	BC238		-50	
	BC239		-50	
Collector Power Dissipation		P_C	625	mW
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	-55～150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	V_{CB}=50V, I_E=0	-	-	15	nA
DC Current Gain (Note)	BC237	h_{FE}	V_{CE}=5V, I_C=2mA	120	-	460	
	BC238			120	-	800	
	BC239			180	-	800	
Collector-Emitter Saturation Voltage	BC237	$V_{CE(sat)}$	I_C=100mA, I_B=5mA	-	-	0.6	V
	BC238			-	-	0.6	
	BC239		I_C=10mA, I_B=0.5mA	-	-	0.2	
Base-Emitter Saturation Voltage	BC237	$V_{BE(sat)}$	I_C=100mA, I_C=5mA	-	-	1.05	V
	BC238			-	-	1.05	
	BC239		I_C=10mA, I_B=0.5mA	-	-	0.83	
Base-Emitter Voltage		$V_{BE(ON)}$	V_{CE}=5V, I_C=2mA	0.55	-	0.7	V
Transition Frequency		f_T	V_{CE}=5V, I_C=10mA, f=100MHz	150	250	-	MHz
Collector Output Capacitance		C_{ob}	V_{CB}=10V, f=1MHz, I_E=0	-	-	4.5	pF
Noise Figure	BC237	NF	V_{CE}=6V, I_C=0.1mA R_g=10kΩ, f=1kHz	-	1.0	10	dB
	BC238			-	1.0	10	
	BC239			-	0.2	3.0	

NOTE : According to the Value of h_{FE} the BC237, BC238, BC239 are classified as follows.

CLASSIFICATION		A	B	C
h_{FE}	BC237	120～220	180～460	-
	BC238	120～220	180～460	380～800
	BC239	-	180～460	380～800

littlediode
COMPONENTS FOR ALL

Littlediode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.