

## TO-92 Plastic-Encapsulate Transistors

### BF240 TRANSISTOR (NPN)

#### FEATURES

- General Purpose Switching and Amplification.

#### MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)

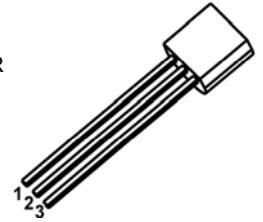
Symbol	Parameter	Value	Unit
V <sub>CB0</sub>	Collector-Base Voltage	40	V
V <sub>CE0</sub>	Collector-Emitter Voltage	40	V
V <sub>EBO</sub>	Emitter-Base Voltage	4	V
I <sub>C</sub>	Collector Current	25	mA
P <sub>C</sub>	Collector Power Dissipation	300	mW
R <sub>θJA</sub>	Thermal Resistance From Junction To Ambient	416	°C/W
T <sub>j</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55~+150	°C

#### TO - 92

1.COLLECTOR

2 .EMITTER

3. BASE



#### ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = 0.1mA, I <sub>E</sub> =0	40			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =1mA, I <sub>B</sub> =0	40			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =100μA, I <sub>C</sub> =0	4			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =20V, I <sub>E</sub> =0			0.1	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =4V, I <sub>C</sub> =0			0.1	μA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =1mA	67		220	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =1mA			0.3	V
Base-emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =1mA			0.775	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> = 1mA, f=100 MHz	150			MHz