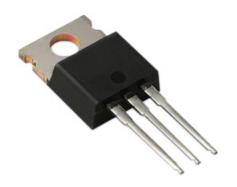
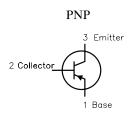
# General Purpose Power Transistor





## RoHS Compliant



## **Description:**

Plastic, PNP, TO-220 power transistor General purpose amplifier and switching applications

### **Absolute Maximum Ratings**

Parameter	Symbol	Rating	Unit	
Collector-Emitter Voltage	V <sub>CEO</sub>	100		
Collector-Base Voltage	V <sub>CBO</sub>	115	V	
Emitter-Base Voltage	V <sub>EBO</sub>	5		
Continuous Collector Current	I <sub>c</sub>	2	А	
Base Current = I <sub>B</sub> Total Device Dissipation at T <sub>c</sub> = +25°C Derate above +25°C = 0.24mW/°C	P <sub>D</sub>	36	W	
Operating and Storage Junction Temperature Range	$T_{j},T_{stg}$	-65 to +150	°C	

## Electrical Characteristics ( $T_A = 25$ °C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min.	Max.	Unit
OFF Characteristics	'				
Collector - Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	I <sub>c</sub> =30mA, I <sub>B</sub> =0 Note 1	100	-	V
Collector - Base Breakdown Voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =1mA, I <sub>E</sub> =0	115	-	V
Emitter - Base Breakdown Voltage	V <sub>(BR)EBO</sub>	I <sub>C</sub> =1mA, I <sub>E</sub> =0	5	-	V
Collector Cut-Off Current	I <sub>CBO</sub>	V <sub>CB</sub> =60V, I <sub>B</sub> =0	-	0.2	
Collector Cut-Oil Current	I <sub>CES</sub>	V <sub>CE</sub> =100V, V <sub>BE</sub> =0	-	0.3	mA
Emitter Cut-Off Current	I <sub>EBO</sub>	$V_{EB}$ =5V, $I_{C}$ =0	-	1	

# General Purpose Power Transistor



## Electrical Characteristics ( $T_A = 25$ °C unless otherwise specified)

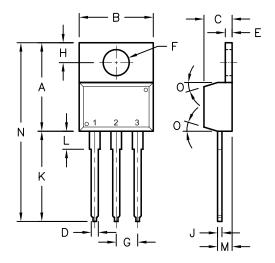
### **ON Characteristics (Note 1)**

DC Current Gain h <sub>FE</sub>	b	V <sub>CE</sub> =4V, I <sub>C</sub> =0.2A	15	-	-
	I I <sub>FE</sub>	$V_{CE}$ =4V, $I_{C}$ =1A	40	-	-
Collector - Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =1A, I <sub>B</sub> =0.2A	-	0.7	\/
Base - Emitter On Voltage	V <sub>BE(on)</sub>	I <sub>C</sub> =1A, V <sub>CE</sub> =4V		1.3	\ \

#### **Small-Signal Characteristics**

Current Gain-Bandwidth Product	f <sub>⊤</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =0.2A, f=1MHz	3	1	MHz
Small-Signal Current Gain	h <sub>fe</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =0.2A, f=1MHz	20	-	-

Note 1. Pulse Test: Pulse Width ≤300µs, Duty Cycle ≤2%.



### **Pin Configuration:**

- 1. Base
- 2. Collector
- 3. Emitter

Dimensions	Min. Max.		
А	14.42	16.51	
В	9.63	10.67	
С	3.56	4.83	
D	-	0.9	
E	1.15	1.4	
F	3.75	3.88	
G	2.29	2.79	
Н	2.54	3.43	
J	- 0.56		
K	12.7	14.73	
L	2.8	4.07	
M	2.03	2.92	
N	- 31.24		
0	7°		

Dimensions : Millimetres

### **Part Number Table**

Description	Part Number		
Transistor, Plastic, PNP, 2A, 100V, TO-220	BD240C		

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