

Single Bipolar Transistor multicomp^{PRO}



RoHS
Compliant

Absolute Maximum Ratings

Description	Symbol	BF469	BF471	Unit
Collector Base Voltage	V_{CBO}	250	300	V
Collector Emitter Voltage	V_{CEO}			
Collector -Emitter Voltage($R_{BE}<2.7kW$)	V_{CER}			
Emitter Base Voltage	I_c	5		
Collector Current	I_c	30		MA
Collector Peak Current	I_{CM}	100		
Collector Peak Current	P_{tot}	2		W
Operating & Storage Junction Temperature Range	T_j, T_{stg}	- 65 to +150		°C

Thermal Resistance

Description	Symbol	Value	Unit
Junction to Ambient/<4mm copper cooling area<10x10mm with 35mm thickness	$R_{th(j-a)}$	100	K/W
Junction to Case	$R_{th(j-c)}$	20	

Electrical Characteristics ($T_a = 25^\circ\text{C}$ Unless otherwise specified)

Description	Symbol	Test Condition	Min.	Max.	Unit
Collector Cut-off Current	I_{CBO}	$V_{CB}=200V, I_E=0$ BF469		100	nA
Collector Cut-off Current	I_{CER}	$V_{CE}=250V, R_{BE}=2.7kW$ BF471 $V_{CE}=200V, R_{BE}=2.7kW$ $T_j=150^\circ\text{C}$		50 10	nA μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5V, I_c=0$		10	μA
Collector -Base Voltage	V_{CBO}	$I_c = 10\mu\text{A}, I_E = 0$ BF469/ BF471	250/300		V
Collector Emitter Voltage	V_{CEO}	$I_c=1\text{mA}, I_B=0$ BF469	250	1.2	
Collector Emitter Voltage	V_{CER}	$I_c=1\mu\text{A}, R_{BE}=2.7k\Omega$ BF471	300		
Emitter Base Voltage	V_{EBO}	$I_E=10\mu\text{A}, I_c=0$	5		
DC Current Gain	h_{FE}	$I_c=25\text{mA}, V_{CE}=20V$	50		

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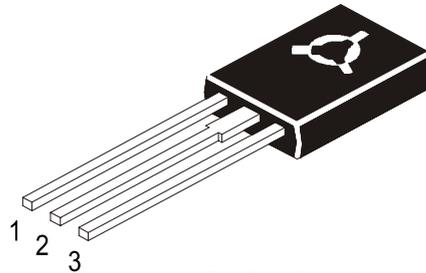
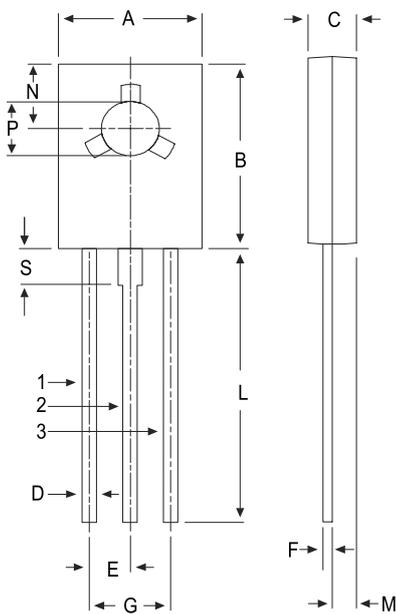
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Electrical Characteristics (Tc=25°C Unless Specified Otherwise)

Dynamic Characteristics				
Description	Symbol Test Condition	Min.	Max.	Unit
Gain Bandwidth Product	f_T $I_C=10\text{mA}$, $V_{CE}=10\text{V}$	60	--	MHz
Feedback Capacitance	C_{re} $I_C=0$, $V_{CE}=30\text{V}$, $f=0.5\text{MHz}$	--	1.8	pF

Diagram



Pin Configuration

1. Emitter
2. Collector
3. Base

DIM	MIN	MAX
A	7.4	7.8
B	10.5	10.8
C	2.4	2.7
D	0.7	0.9
E	2.25 TYP.	
F	0.49	0.75
G	4.5 TYP.	
L	15.7 TYP.	
M	1.27 TYP.	
N	3.75 TYP.	
P	3	3.2
S	2.5 TYP.	

Part Number Table

Description	Part Number
Single Bipolar Transistor, NPN, 250V, 30mA, 2W, TO-126	BF469
Single Bipolar Transistor, NPN, 300V, 30mA, 2W, TO-126	BF471

Dimensions : Millimetres

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