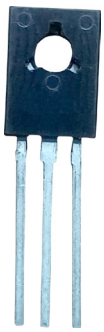
Single Bipolar Transistor



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(RBE<2.7kW)	V_{CER}			
Emitter Base Voltage	I_C	5		
Collector Current Collector Peak Current	I_C I_{CM}	30 100		MA
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 (Ta = 25°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 Tj=150ºC		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 = 10µA, I_E = 0 BF469/ BF471	250/300		V
Collector Emitter Voltage	V_{CEO}	I_C=1mA, I_B=0 BF469	250	1.2	
Collector Emitter Voltage	V_{CER}	I_C=1µA, R_{BE}=2.7kΩ BF471	300		
Emitter Base Voltage	V_{EBO}	I_E=10µA, I_C=0	5		
DC Current Gain	h_{FE}	I_C=25mA, V_{CE}=20V	50		

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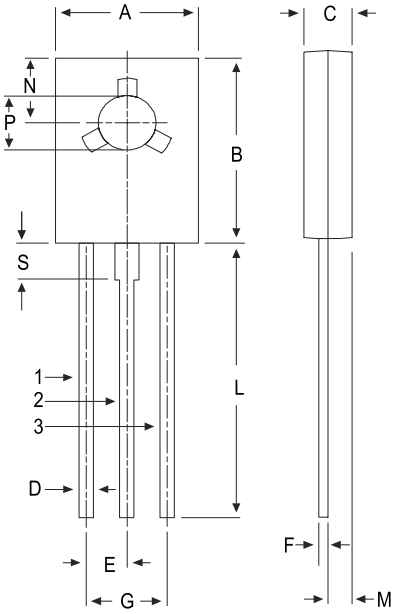
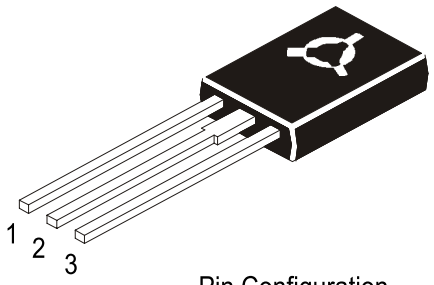
Electrical Characteristics (Tc=25ºc Unless Specified Otherwise)

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