

Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings @ 25°C Unless Otherwise Specified

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 150°C/W Junction to Ambient

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	BF420	300	V
	BF422	250	
Collector-Emitter Voltage	BF420	300	V
	BF422	250	
Emitter-Base Voltage	V_{EBO}	5	V
Continuous Collector Current	I_C	0.1	A
Power Dissipation	P_D	830	mW

**NPN Silicon
Plastic-Encapsulate
Transistor**

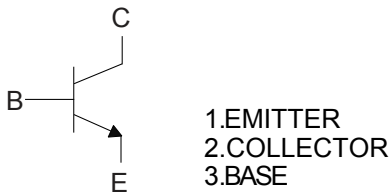
TO-92

The diagrams show the TO-92 package from three perspectives: a top view showing the dome shape and lead spacing G; a side view showing the height B and lead length C; and a lead view showing the lead width D and the lead numbers 1 (emitter), 2 (collector), and 3 (base). Dimensions A and E are also indicated for the top and side views respectively.

DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.169	0.185	4.30	4.70	
B	0.169	0.185	4.30	4.70	
C	0.500	-----	12.70	-----	
D	0.015	0.022	0.38	0.55	
E	0.130	0.146	3.30	3.70	
G	0.095	0.105	2.42	2.67	Straight Lead
	0.173	0.220	4.40	5.60	Bent

Marking: Type Number

Internal Structure



Electrical Characteristics @ $T_A=25^\circ\text{C}$ Unless Otherwise Specified

Parameter		Symbol	Min	Typ	Max	Units	Conditions
Collector-Base Breakdown Voltage	BF420	$V_{(BR)CBO}$	300			V	$I_C=100\mu\text{A}, I_E=0$
	BF422		250				
Collector-Emitter Breakdown Voltage	BF420	$V_{(BR)CEO}$	300			V	$I_C=1\text{mA}, I_B=0$
	BF422		250				
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	5			V	$I_E=100\mu\text{A}, I_C=0$
Collector Cutoff Current		I_{CBO}			0.01	μA	$V_{CB}=200\text{V}, I_E=0$
Emitter Cutoff Current		I_{EBO}			0.05	μA	$V_{EB}=5\text{V}, I_C=0$
DC Current Gain		h_{FE}	50				$V_{CE}=20\text{V}, I_C=25\text{mA}$
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$			0.6	V	$I_C=30\text{mA}, I_B=5\text{mA}$
Transition Frequency		f_T	60			MHz	$V_{CE}=10\text{V}, I_C=10\text{mA}, f=100\text{MHz}$

Ordering Information

Device	Packing
Part Number-AP	Ammo Packing: 20Kpcs/Carton
Part Number-BP	Bulk: 1k/Bag, 100K/Ctn;

Note : Adding "-HF" Suffix for Halogen Free, eg. Part Number-TP-HF

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