

# **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)

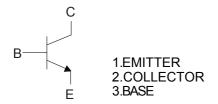
# Maximum Ratings @ 25°C Unless Otherwise Specified

- 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

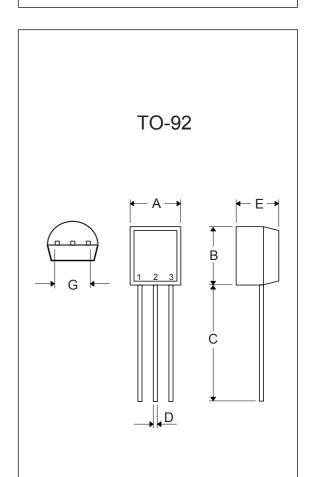
Parameter	Symbol	Rating	Unit		
Collector-Base Voltage	BF420	$V_{CBO}$	300	V	
Collector-base voltage	BF422	v CBO	250		
Collector-Emitter	BF420	$V_{CEO}$	300	V	
Voltage	BF422	▼ CEO	250	V	
Emitter-Base Voltage		V <sub>EBO</sub>	5	V	
Continuous Collector Current		I <sub>C</sub>	0.1	Α	
Power Dissipation	$P_{D}$	830	mW		

Marking: Type Number

# **Internal Structure**



# NPN Silicon Plastic-Encapsulate Transistor



DIMENSIONS					
DIM INC		HES	MM		NOTE
ווועו	MIN	MAX	MIN	MAX	NOIL
Α	0.169	0.185	4.30	4.70	
В	0.169	0.185	4.30	4.70	
С	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



# Electrical Characteristics @ $T_A$ =25°C Unless Otherwise Specified

Parameter		Symbol	Min	Тур	Max	Units	Conditions	
Collector-Base Breakdown Voltage	BF420	V <sub>(BR)CBO</sub>	300			V	I <sub>C</sub> =100μA, I <sub>F</sub> =0	
	BF422		250			V	ι <sub>C</sub> =100μΑ, ι <sub>E</sub> =0	
Collector-Emitter Breakdown Voltage	BF420	V <sub>(BR)CEO</sub>	300			V	I <sub>C</sub> =1mA, I <sub>B</sub> =0	
	BF422		250					
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	5			V	I <sub>E</sub> =100μA, I <sub>C</sub> =0	
Collector Cutoff Current		I <sub>CBO</sub>			0.01	μA	V <sub>CB</sub> =200V, I <sub>E</sub> =0	
Emitter Cutoff Current		I <sub>EBO</sub>			0.05	μA	$V_{EB}$ =5 $V$ , $I_{C}$ =0	
DC Current Gain		h <sub>FE</sub>	50				$V_{CE}$ =20V, $I_{C}$ =25mA	
Collector-Emitter Saturation Voltage		V <sub>CE(sat)</sub>			0.6	V	I <sub>C</sub> =30mA, I <sub>B</sub> =5mA	
Transition Frequency		f <sub>T</sub>	60			MHz	V <sub>CE</sub> =10V, I <sub>C</sub> =10mA, f=100MHz	



# **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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