



Micro Commercial Components



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PN2222A

625mW NPN General Purpose Amplifier

Features

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Marking: Type number
- Continuous Collector Current (Ic) =600mA.
- Operating and storage temperature range(Tj&Tstg) from -55°C ~+150 °C
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Thermal Resistance Junction to Ambient:200°C/W
Thermal Resistance Junction to Case 83.3°C/W

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage* (I _C =10mA, I _B =0)	40		Vdc
V _{(BR)CBO}	Collector-Base Breakdown Voltage (I _C =10μA, I _E =0)	75		Vdc
V _{(BR)EBO}	Emitter-Base Breakdown Voltage (I _E =10μA, I _C =0)	6.0		Vdc
I _{BL}	Base Cutoff Current (V _{CE} =60Vdc, V _{BE} =3.0Vdc)		20	nAdc
I _{CEX}	Collector Cutoff Current (V _{CE} =60Vdc, V _{BE} =3.0Vdc)		10	nAdc

ON CHARACTERISTICS

h _{FE}	DC Current Gain* (I _C =0.1mA, V _{CE} =10Vdc) (I _C =1.0mA, V _{CE} =10Vdc) (I _C =10mA, V _{CE} =10Vdc) (I _C =150mA, V _{CE} =10Vdc) (I _C =150mA, V _{CE} =1.0Vdc) (I _C =500mA, V _{CE} =10Vdc)	35	300	Vdc
		50		
		75		
		100		
		50		
V _{CE(sat)}	Collector-Emitter Saturation Voltage (I _C =150mA, I _B =15mA) (I _C =500mA, I _B =50mA)		0.3 1.0	Vdc
V _{BE(sat)}	Base-Emitter Saturation Voltage (I _C =150mA, I _B =15mA) (I _C =500mA, I _B =50mA)	0.6	1.2 2.0	Vdc

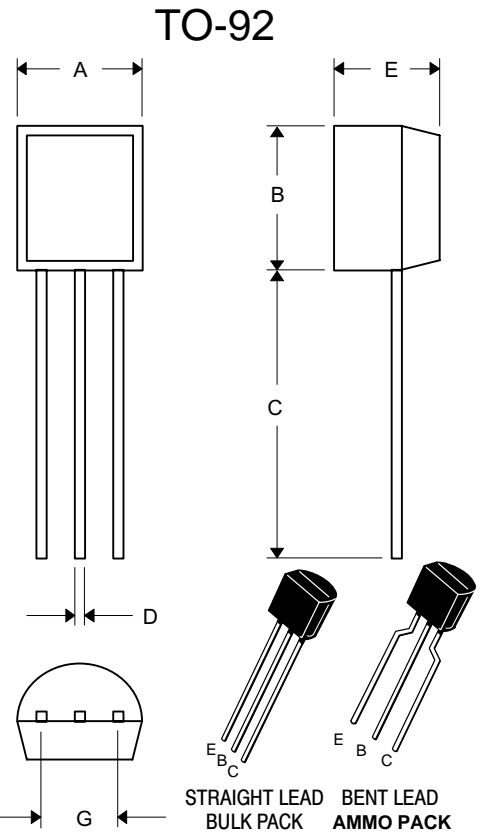
SMALL-SIGNAL CHARACTERISTICS

f _T	Current Gain-Bandwidth Product (I _C =20mA, V _{CE} =20Vdc, f=100MHz)	300		MHz
C _{obo}	Output Capacitance (V _{CB} =10Vdc, I _E =0, f=100kHz)		8.0	pF
C _{ibo}	Input Capacitance (V _{BE} =0.5Vdc, I _C =0, f=100kHz)		25	pF
NF	Noise Figure (I _C =100μA, V _{CE} =10Vdc, R _S =1.0kΩ, f=1.0kHz)		4.0	dB

SWITCHING CHARACTERISTICS

t _d	Delay Time	(V _{CC} =30Vdc, V _{BE} =0.5Vdc, I _C =150mA, I _{B1} =15mA)	10	ns
t _r	Rise Time	(V _{CC} =30Vdc, I _C =150mA, I _{B1} =15mA)	25	ns
t _s	Storage Time	(V _{CC} =30Vdc, I _C =150mA, I _{B1} =I _{B2} =15mA)	225	ns
t _f	Fall Time	(V _{CC} =30Vdc, I _C =150mA, I _{B1} =I _{B2} =15mA)	60	ns

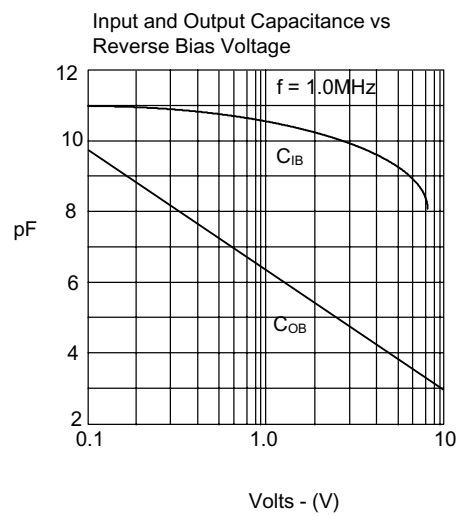
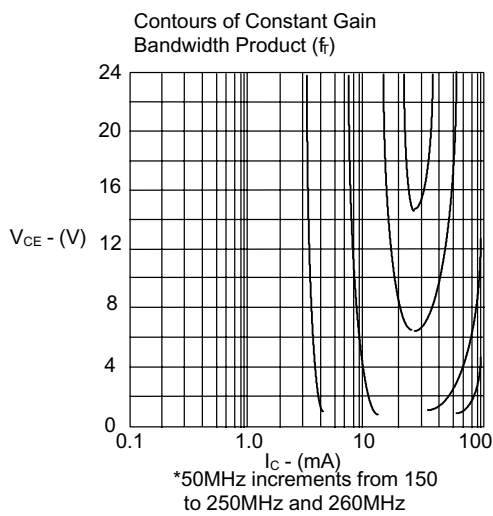
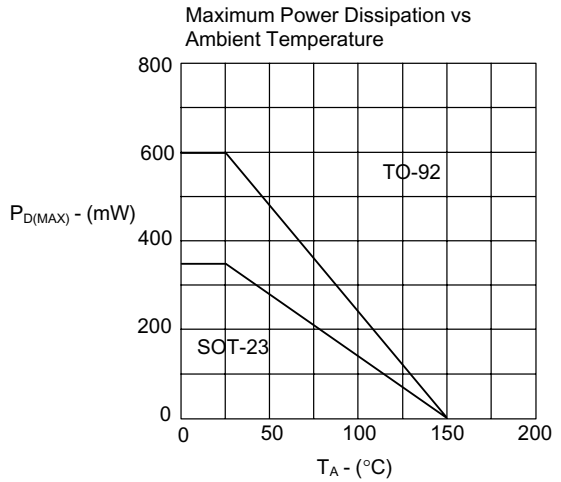
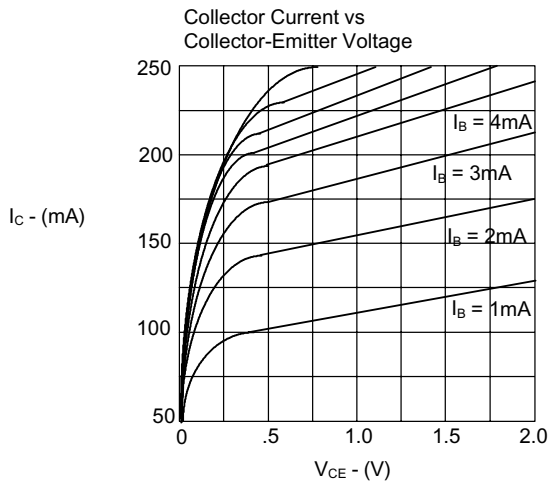
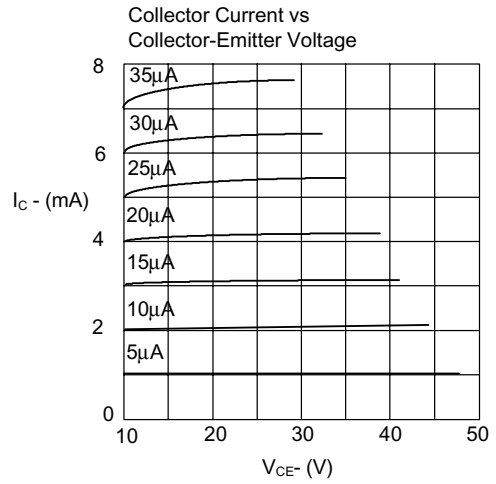
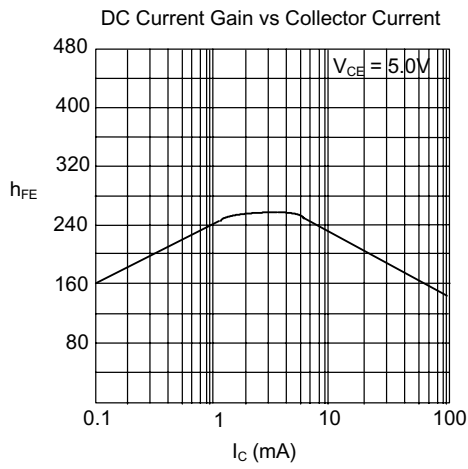
*Pulse Width ≤ 300μs, Duty Cycle ≤ 2.0%



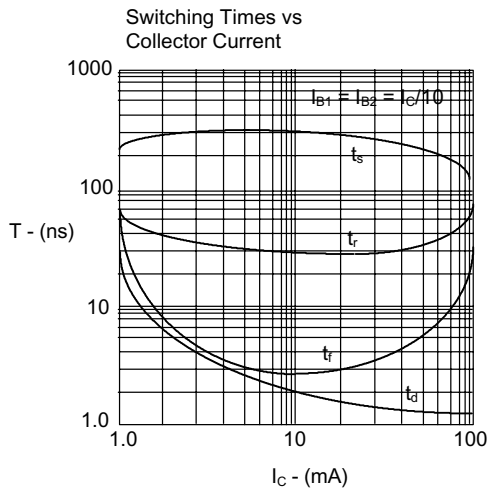
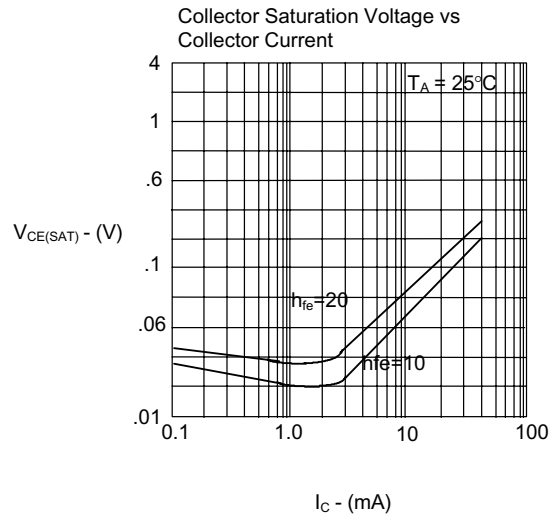
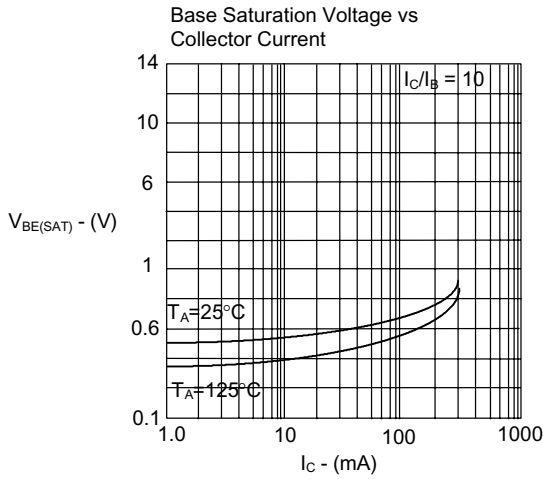
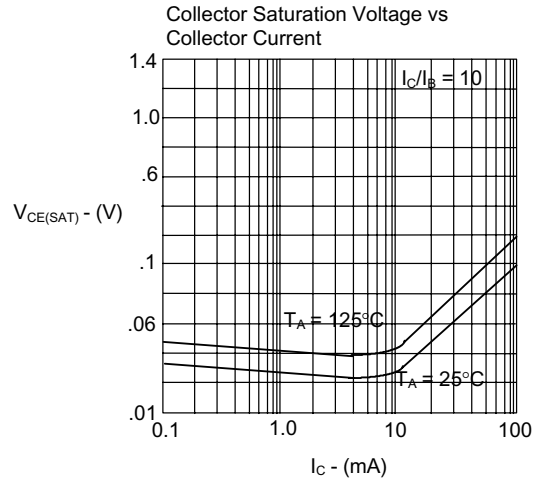
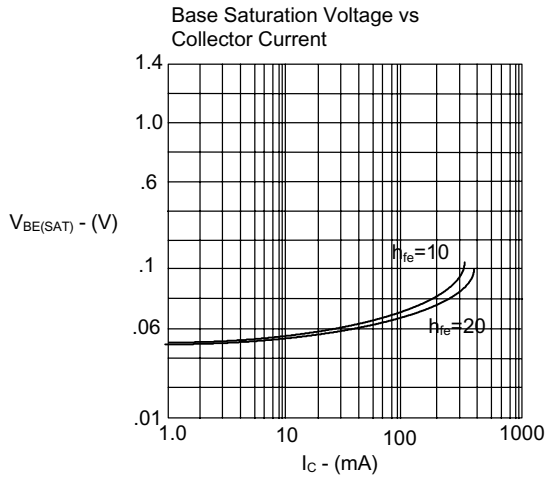
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.175	.185	4.45	4.70	
B	.175	.185	4.45	4.70	
C	.500	---	12.70	---	
D	.016	.020	0.41	0.63	
E	.135	.145	3.43	3.68	
G	.095	.105	2.42	2.67	Straight Lead
	.173	.220	4.40	5.60	Bent Lead

* For ammo packing detailed specification, click here to visit our website of product packaging for details.

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Ordering Information :

Device	Packing
Part Number-AP	Ammo Packing: 20Kpcs/Carton
Part Number-BP	Bulk: 100Kpcs/Carton

Note : Adding "-HF" suffix for halogen free, eg. Part Number-AP-HF

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