



Micro Commercial Components

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PN2222A

600mW NPN General Purpose Amplifier

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- ≠ Marking: Type number
- Continuous Collector Current (I_C) = 600mA.
- Operating and storage temperature range(T_J&T_{stg}) from -55°C ~+150 °C
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1

Electrical Characteristics @ 25°C Unless Otherwise Specified

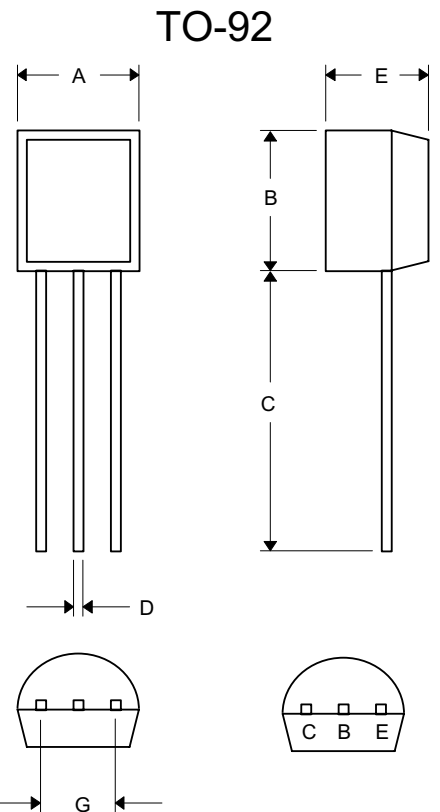
Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage* (I _C =10mAdc, I _B =0)	40		Vdc
V _{(BR)CBO}	Collector-Base Breakdown Voltage (I _C =10μAdc, I _E =0)	75		Vdc
V _{(BR)EBO}	Emitter-Base Breakdown Voltage (I _E =10μAdc, I _C =0)	6.0		Vdc
I _{BL}	Base 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 =0.1mAdc, V _{CE} =10Vdc) (I _C =1.0mAdc, V _{CE} =10Vdc) (I _C =10mAdc, V _{CE} =10Vdc) (I _C =150mAdc, V _{CE} =10Vdc) (I _C =150mAdc, V _{CE} =1.0Vdc) (I _C =500mAdc, V _{CE} =10Vdc)	35 50 75 100 50 40	300	
V _{CE(sat)}	Collector-Emitter Saturation Voltage (I _C =150mAdc, I _B =15mAdc) (I _C =500mAdc, I _B =50mAdc)		0.3 1.0	Vdc
V _{BE(sat)}	Base-Emitter Saturation Voltage (I _C =150mAdc, I _B =15mAdc) (I _C =500mAdc, I _B =50mAdc)	0.6	1.2 2.0	Vdc

SMALL-SIGNAL CHARACTERISTICS				
f _T	Current Gain-Bandwidth Product (I _C =20mAdc, 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 =100μAdc, V _{CE} =10Vdc, R _S =1.0kΩ f=1.0kHz)		4.0	dB

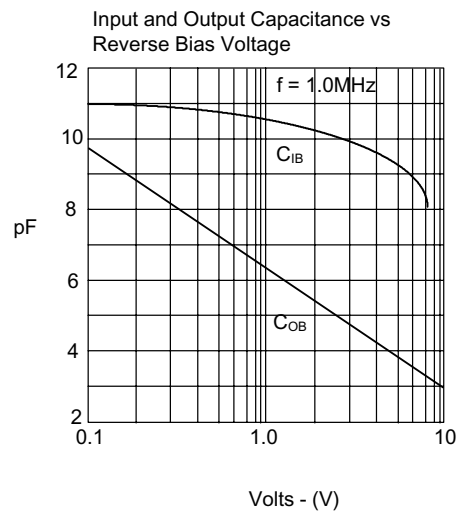
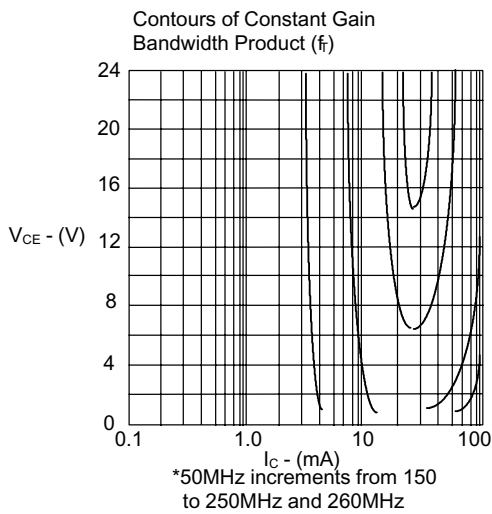
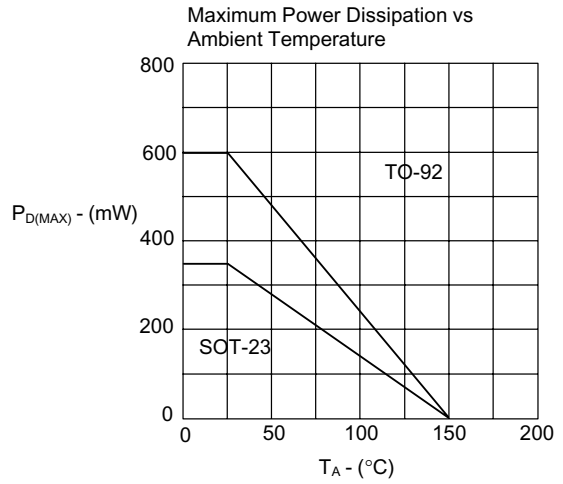
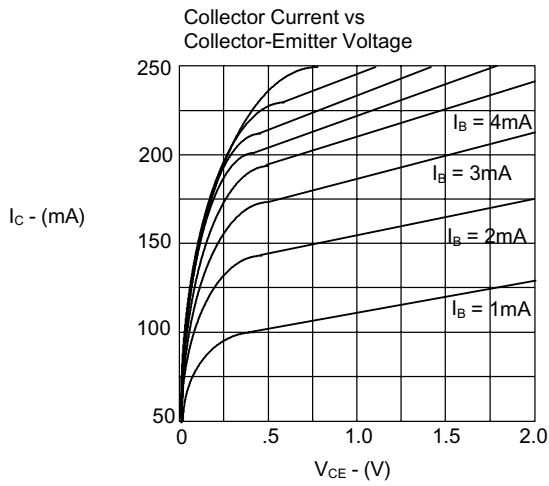
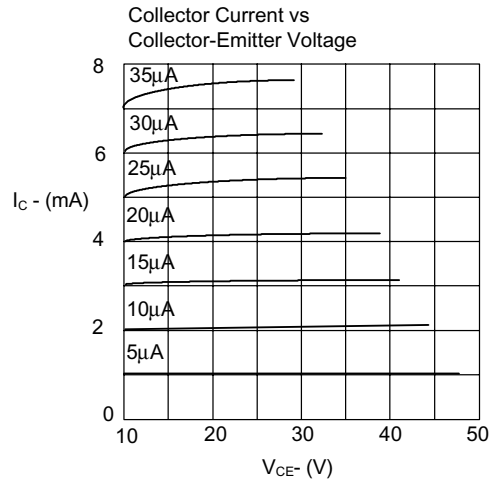
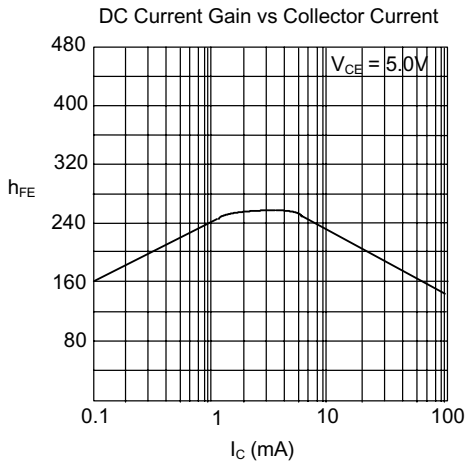
SWITCHING CHARACTERISTICS				
t _d	Delay Time	(V _{CC} =30Vdc, V _{BE} =0.5Vdc I _C =150mAdc, I _{B1} =15mAdc)	10	ns
t _r	Rise Time		25	ns
t _s	Storage Time	(V _{CC} =30Vdc, I _C =150mAdc I _{B1} =I _{B2} =15mAdc)	225	ns
t _f	Fall Time		60	ns

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

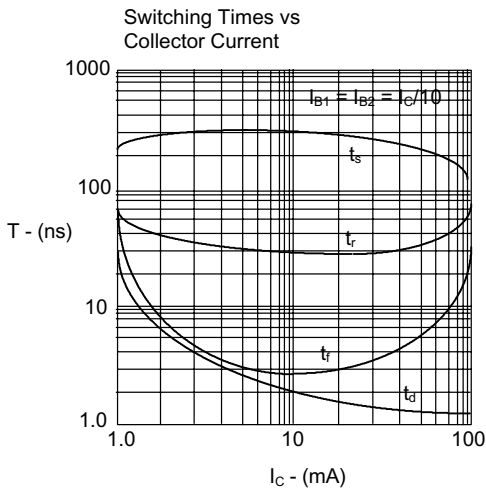
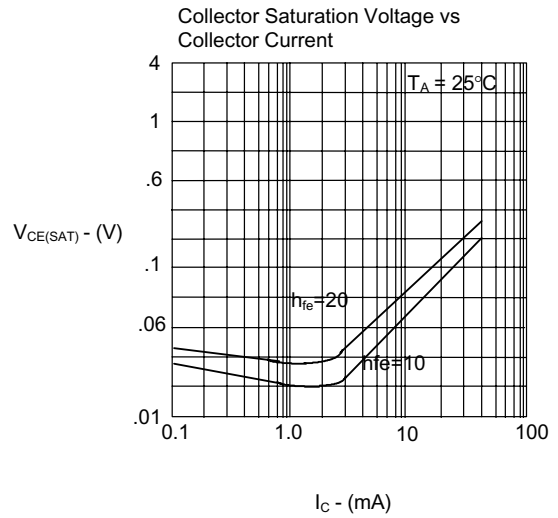
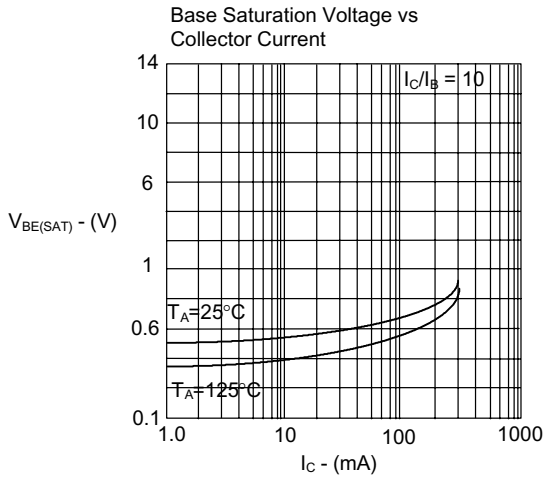
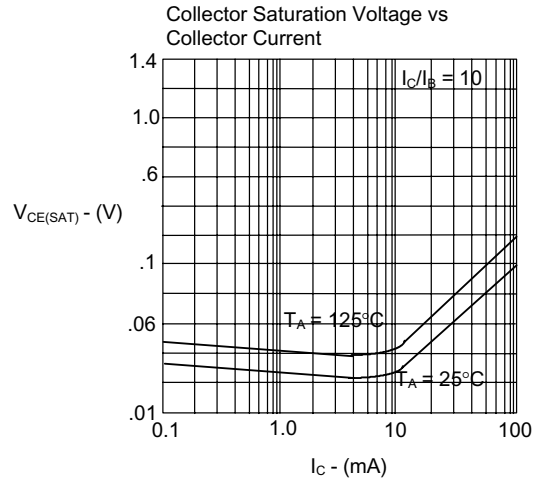
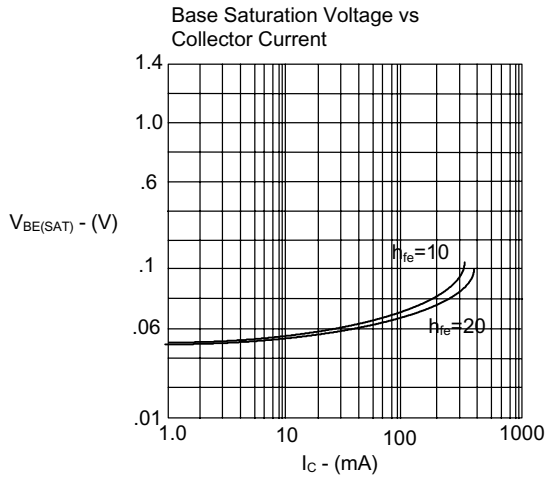


DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.175	.185	4.45	4.70	
B	.175	.185	4.45	4.70	
C	.500	-----	12.70	-----	
D	.016	.020	0.41	0.56	
E	.135	.145	3.43	3.68	
G	.095	.105	2.42	2.67	

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TM

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Ordering Information

Device	Packing
(Part Number)-AP	Tape&Reel;2Kpcs/Box
(Part Number)-BP	Bulk;1Kpcs/Bag

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