



Micro Commercial Components



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2N4403

PNP General Purpose Amplifier

Features

- Halogen free available upon request by adding suffix "-HF"
- Capable of 625mWatts of Power Dissipation
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking: Type number
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage* ($I_C=-1.0mA$, $I_B=0$)	-40		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=-100\mu A$, $I_E=0$)	-40		Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=-100\mu A$, $I_C=0$)	-5.0		Vdc
I_{CBO}	Collector Cut-off Current ($V_{CE}=-35V$, $I_E=0$)		-0.1	μA
I_{EBO}	Emitter Cut-off Current ($V_{EB}=-5V$, $I_C=0$)		-0.1	μA

ON CHARACTERISTICS

h_{FE}	DC Current Gain* ($I_C=-0.1mA$, $V_{CE}=-1.0V$) ($I_C=-1.0mA$, $V_{CE}=-1.0V$) ($I_C=-10mA$, $V_{CE}=-1.0V$) ($I_C=-150mA$, $V_{CE}=-1.0V$) ($I_C=-500mA$, $V_{CE}=-2.0V$)	30		
		60		
		100		
		100	300	
		20		
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=-150mA$, $I_B=-15mA$) ($I_C=-500mA$, $I_B=-50mA$)		-0.4 -0.75	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ($I_C=-150mA$, $I_B=-15mA$) ($I_C=-500mA$, $I_B=-50mA$)	-0.75	-0.95 -1.30	Vdc

SMALL-SIGNAL CHARACTERISTICS

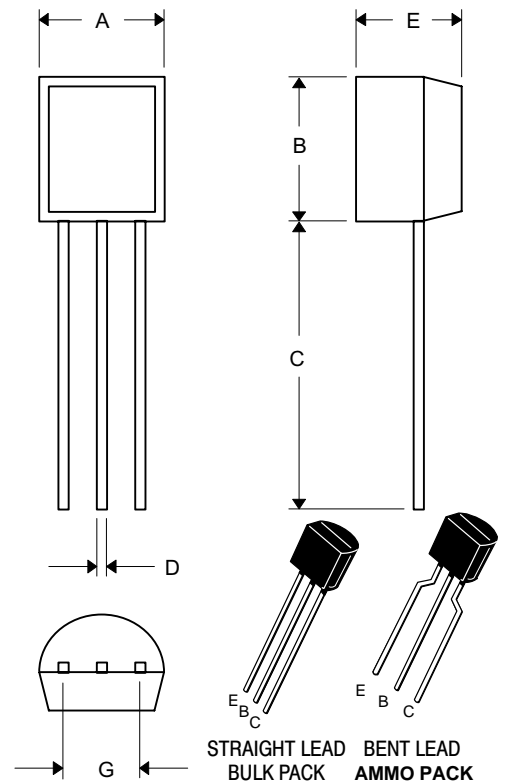
f_T	Current Gain-Bandwidth Product ($I_C=-20mA$, $V_{CE}=-10V$, $f=100MHz$)	200		MHz
C_{cb}	Output Capacitance ($V_{CB}=-10V$, $I_E=0$, $f=140kHz$)		8.5	pF
C_{eb}	Input Capacitance ($V_{EB}=-0.5V$, $I_C=0$, $f=140kHz$)		30.0	pF

SWITCHING CHARACTERISTICS

t_d	Delay Time	($V_{CC}=-3.0V$, $V_{BE}=-2.0V$)	15	ns
t_r	Rise Time	$I_C=-150mA$, $I_{B1}=-15mA$	20	ns
t_s	Storage Time	($V_{CC}=-3.0V$, $I_C=-150mA$)	225	ns
t_f	Fall Time	$I_{B1}=I_{B2}=-15mA$	30	ns

*Pulse Width $\leq 300\mu s$, Duty Cycle $\leq 2.0\%$

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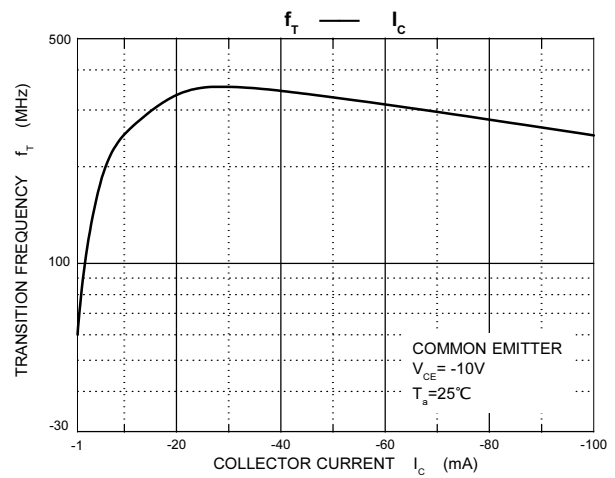
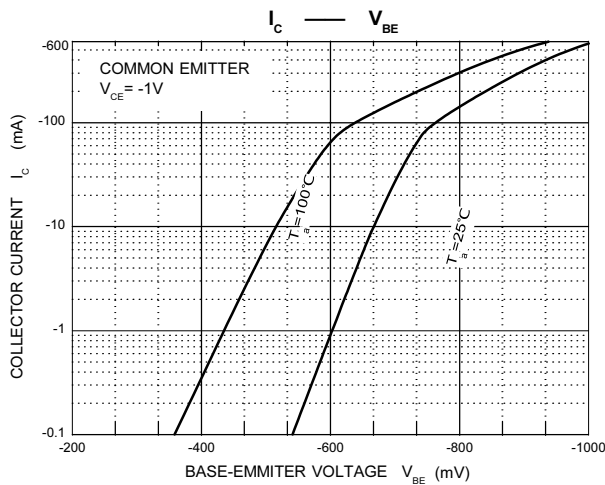
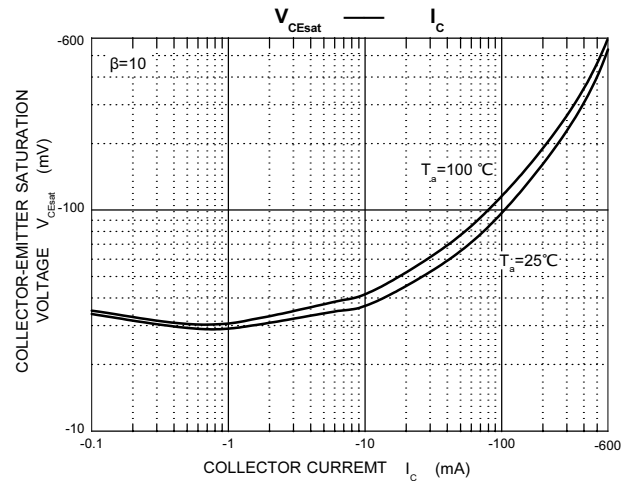
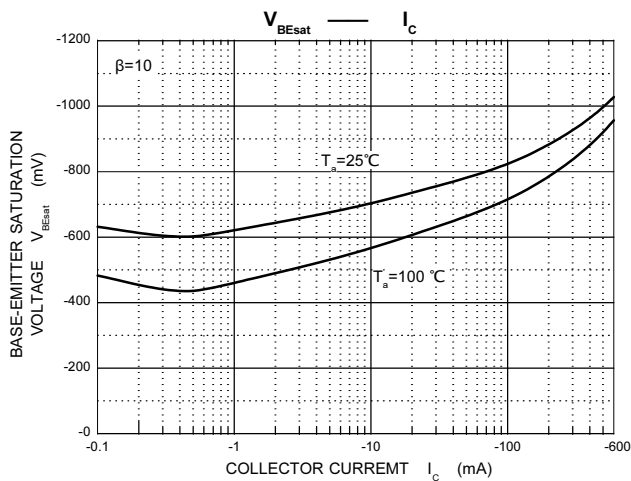
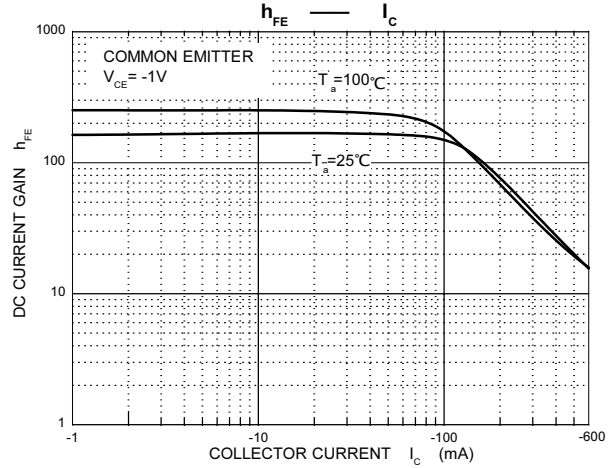
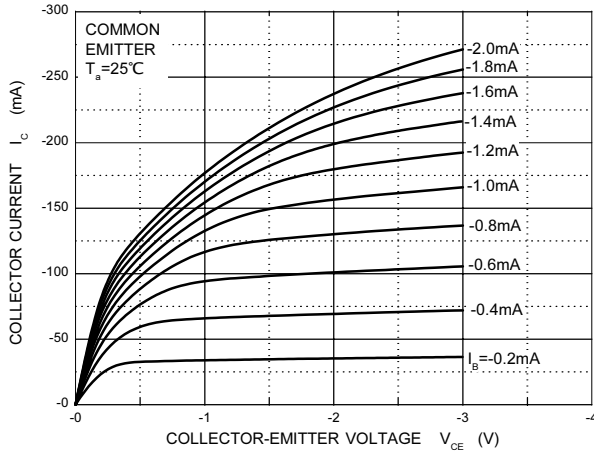
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.175	.185	4.45	4.70	
B	.175	.185	4.45	4.70	
C	.500	---	12.70	---	
D	.016	.020	0.41	0.63	
E	.135	.145	3.43	3.68	
G	.095	.105	2.42	2.67	Straight Lead
	.173	.220	4.40	5.60	Bent Lead

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

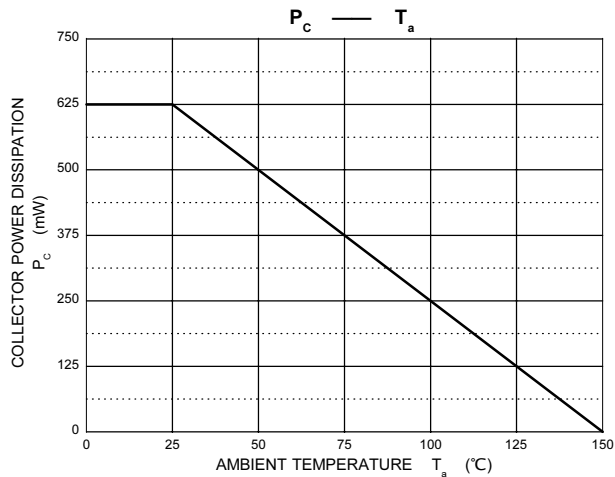
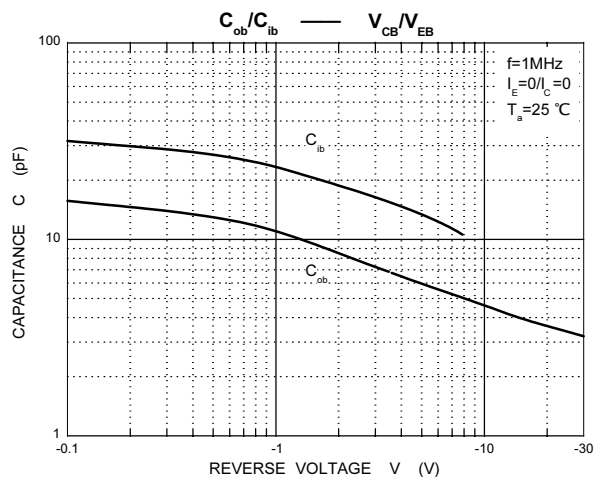
www.mccsemi.com

Typical Characteristics

Static Characteristic



Typical Characteristics





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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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