



Micro Commercial Components

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2N4403

Features

- Through Hole Package
- Capable of 600mWatts of Power Dissipation
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL rating 1
- Marking: Type number
- Lead Free Finish/Rohs Compliant ("P" Suffix designates Compliant. See ordering information)

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage* ($I_C = -1.0\text{mA}$, $I_B = 0$)	-40		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C = -10\mu\text{A}$, $I_E = 0$)	-40		Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E = -10\mu\text{A}$, $I_C = 0$)	-5.0		Vdc
I_{BL}	Base Cutoff Current ($V_{CE} = -30\text{Vdc}$, $V_{BE} = -3.0\text{Vdc}$)		-0.1	μA
I_{CEX}	Collector Cutoff Current ($V_{CE} = -30\text{Vdc}$, $V_{BE} = -3.0\text{Vdc}$)		-0.1	μA

ON CHARACTERISTICS

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

SMALL-SIGNAL CHARACTERISTICS

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

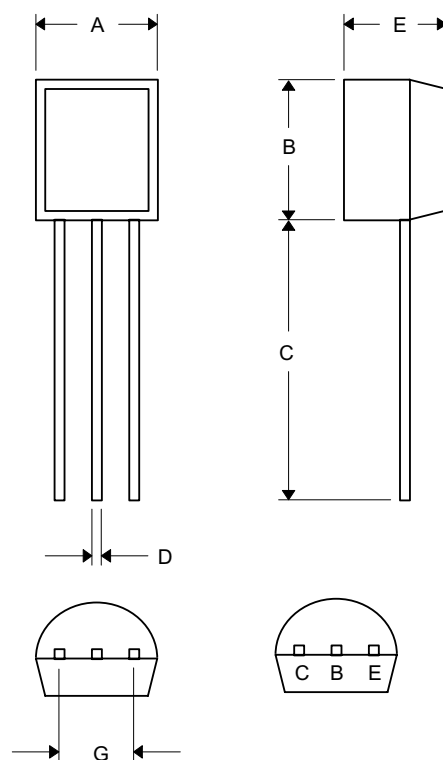
SWITCHING CHARACTERISTICS

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

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

PNP General Purpose Amplifier

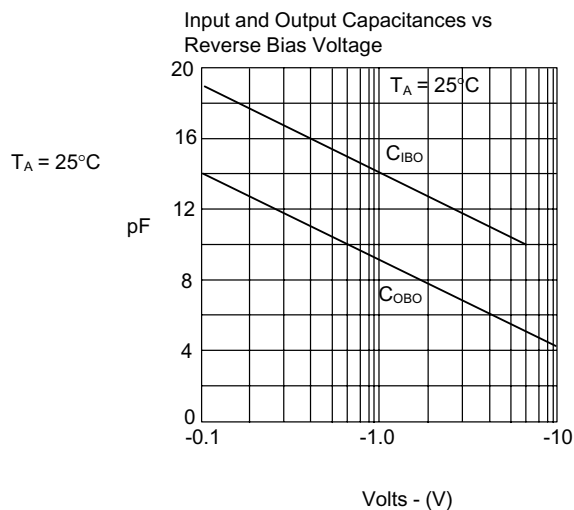
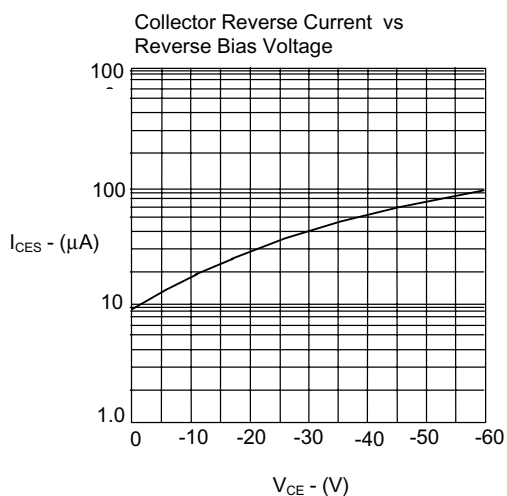
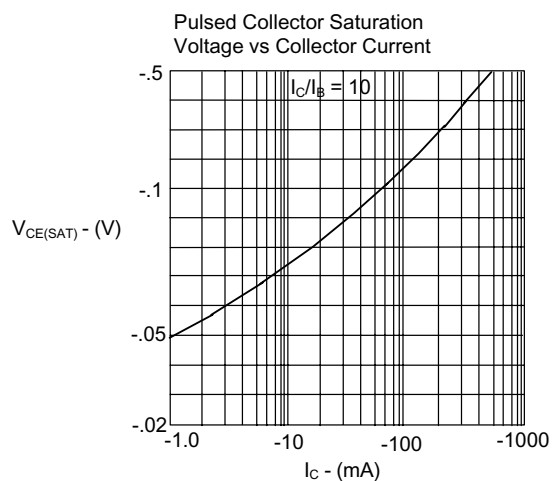
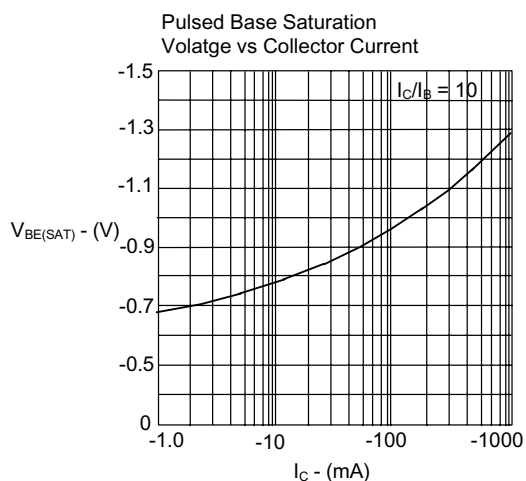
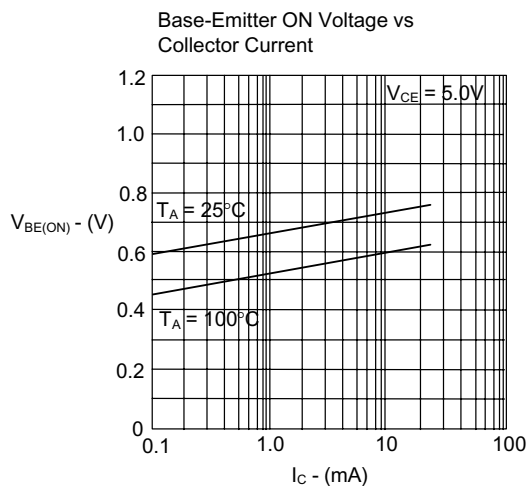
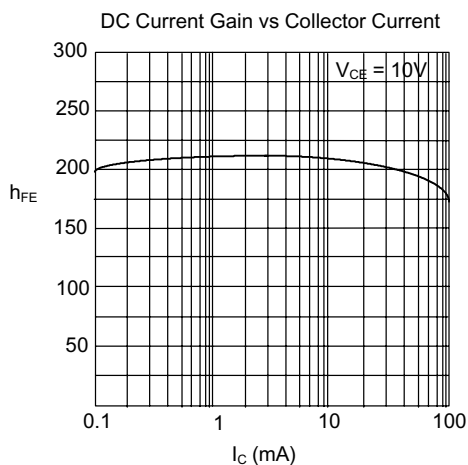
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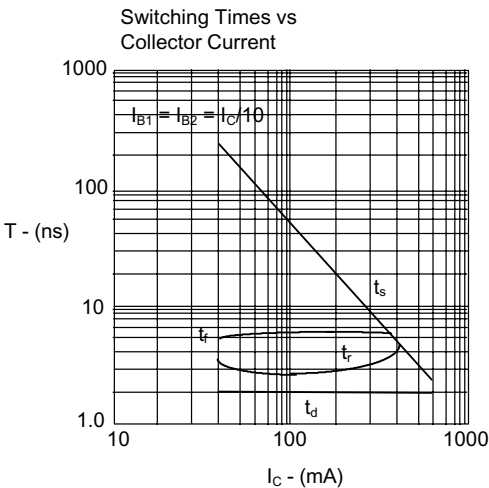
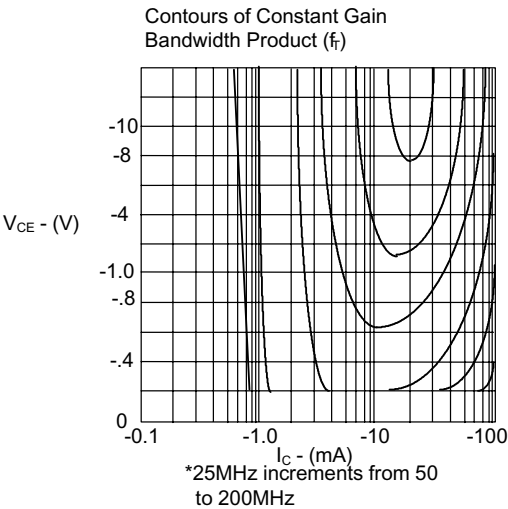
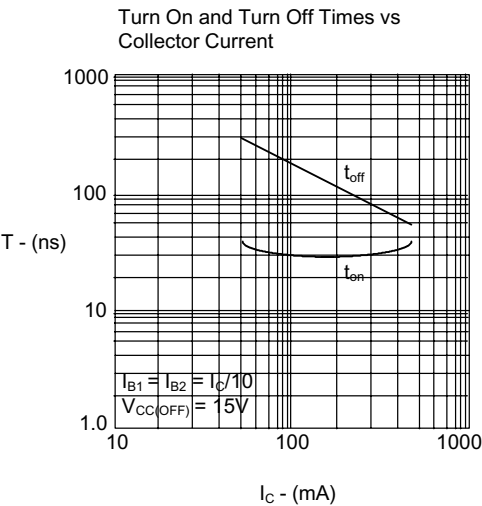
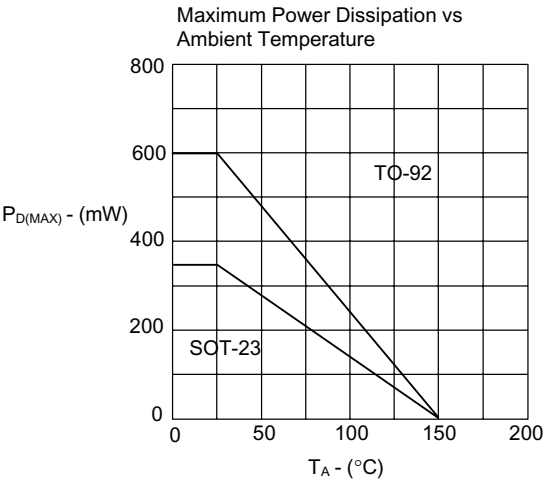
DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.170	.190	4.33	4.83	
B	.170	.190	4.30	4.83	
C	.550	.590	13.97	14.97	
D	.010	.020	0.36	0.56	
E	.130	.160	3.30	3.96	
G	.010	.104	2.44	2.64	

www.mccsemi.com

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Ordering Information

Device	Packing
(Part Number)-AP	Ammo Packing;2Kpcs/AmmoBox
(Part Number)-BP	Bulk;1Kpcs/Bag

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