

Micro Commercial Components



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

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2N4403

Features

- Through Hole Package
- Capable of 600mWatts of Power Dissipation
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1
- Marking:Type number
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units	
OFF CHARA	OFF CHARACTERISTICS				
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage* (I _C =-1.0mAdc, I _B =0)	-40		Vdc	
V _{(BR)CBO}	Collector-Base Breakdown Voltage (I _C =-10μAdc, I _E =0)	-40		Vdc	
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage (I _E =-10μAdc, I _C =0)	-5.0		Vdc	
I _{BL}	Base Cutoff Current (V _{CE} =-30Vdc, V _{BE} =-3.0Vdc)		-0.1	μAdc	
I _{CEX}	Collector Cutoff Current (V _{CE} =-30Vdc, V _{BE} =-3.0Vdc)		-0.1	μAdc	

ON CHARACTERISTICS

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

SMALL-SIGNAL CHARACTERISTICS

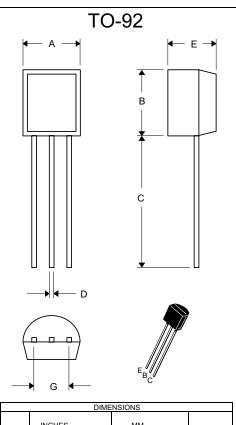
f⊤	Current Gain-Bandwidth Product (I _C =-20mAdc, V _{CE} =-10Vdc, f=100MHz)	200		MHz
C _{cb}	Output Capacitance (V _{CB} =-10Vdc, I _E =0, f=140kHz)		8.5	pF
C _{eb}	Input Capacitance (V _{EB} =-0.5Vdc, I _C =0, f=140kHz)		30.0	pF

SWITCHING CHARACTERISTICS

t_d	Delay Time	(V _{CC} =-3.0Vdc, V _{BE} =-2.0Vdc	15	ns
t _r	Rise Time	I _C =-150mAdc, I _{B1} =-15mAdc)	20	ns
ts	Storage Time	(V _{CC} =-3.0Vdc, I _C =-150mAdc	225	ns
t_f	Fall Time	I _{B1} =I _{B2} =-15mAdc)	30	ns

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

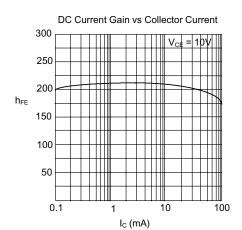
PNP General Purpose Amplifier

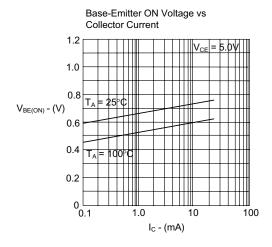


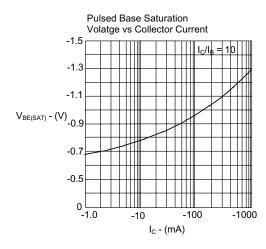
DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
Α	.170	.190	4.33	4.83	
В	.170	.190	4.30	4.83	
C	.550	.590	13.97	14.97	
D	.010	.020	0.36	0.56	
Е	.130	.160	3.30	3.96	
G	.096	.104	2.44	2.64	

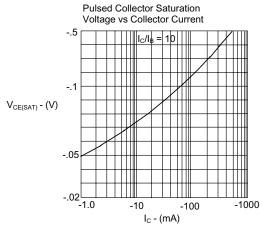
www.mccsemi.com

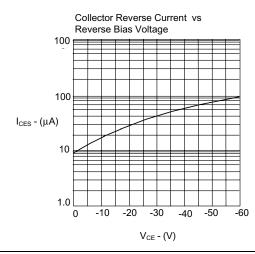


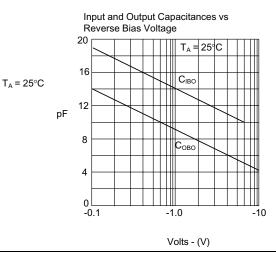








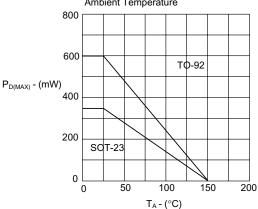




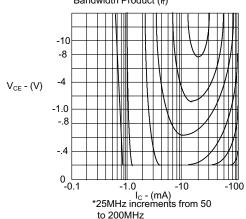
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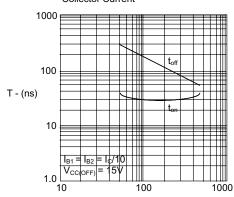
Maximum Power Dissipation vs Ambient Temperature



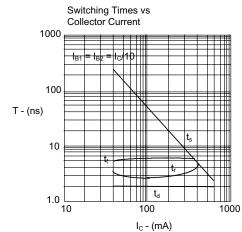
Contours of Constant Gain Bandwidth Product (f_T)



Turn On and Turn Off Times vs Collector Current



I_C - (mA)



Revision: A



Ordering Information:

Device	Packing
Part Number-AP	Ammo Packing: 2Kpcs/Ammo Box
Part Number-BP	Bulk: 100Kpcs/Carton

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