



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

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PN2907A

Features

- Through Hole Package
- Capable of 600mWatts of Power Dissipation and 600mA Ic
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Marking:MPS2907A
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 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)	60		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage (I _C =10μAdc, I _E =0)	60		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} =0.5Vdc)		50	nAdc
I _{CEX}	Collector Cutoff Current (V _{CE} =30Vdc, V _{BE} =0.5Vdc)		50	nAdc
Ісво	Collector Cutoff Current (V _{CB} =50Vdc, I _E =0) (V _{CB} =50Vdc, I _E =0, T _C =150°C)		0.1	μAdc

ON CHARACTERISTICS

h _{FE}	DC Current Gain*				
	(I _C =0.1mAdc, V _{CE} =10Vdc)	75			
	(I _C =1.0mAdc, V _{CE} =10Vdc)	100			
	(I _C =10mAdc, V _{CE} =10Vdc)	100	300		
	(I _C =150mAdc, V _{CE} =10Vdc)	100			
	(I _C =500mAdc, V _{CE} =10Vdc)	50			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage				
, ,	$(I_C=150 \text{mAdc}, I_B=15 \text{mAdc})$		0.4	Vdc	
	(I _C =500mAdc, I _B =50mAdc)		1.6		
V _{BE(sat)}	Base-Emitter Saturation Voltage				
	(I _C =150mAdc, I _B =15mAdc)		1.3	Vdc	
	(I _C =500mAdc, I _B =50mAdc)		2.6		

SMALL-SIGNAL CHARACTERISTICS

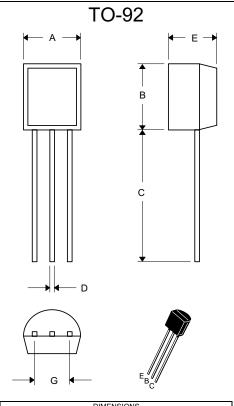
f _T	Current Gain-Bandwidth Product			
	$(I_C=50 \text{mAdc}, V_{CE}=20 \text{Vdc}, f=100 \text{MHz})$	200		MHz
C_{cbo}	Output Capacitance			
	$(V_{CB}=10Vdc, I_{E}=0, f=100kHz)$		8.0	pF
C_{ibo}	Input Capacitance			
	(V _{ER} =2.0Vdc, I _C =0, f=100kHz)		30.0	pF

SWITCHING CHARACTERISTICS

t _d	Delay Time	(V _{CC} =3.0Vdc, I _C =150mAdc,	10	ns
t _r	Rise Time	I _{B1} =15mAdc)	40	ns
t _s	Storage Time	(V _{CC} =3.0Vdc, I _C =150mAdc	80	ns
t _f	Fall Time	I _{B1} =I _{B2} =15mAdc)	30	ns

^{*}Pulse Width ≤ 300µs, Duty Cycle ≤ 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	
С	.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	
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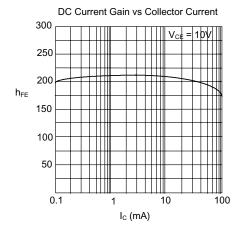
www.mccsemi.com

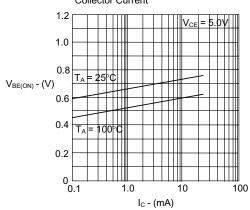
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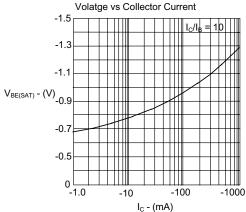
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Base-Emitter ON Voltage vs Collector Current

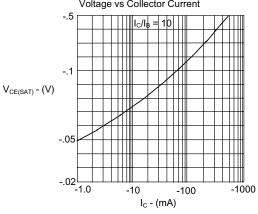




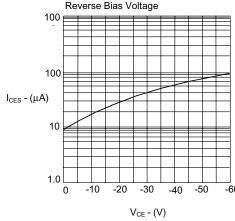
Pulsed Base Saturation Volatge vs Collector Curren



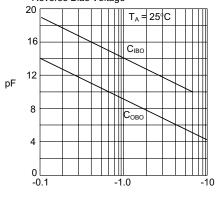




Collector Reverse Current vs Reverse Bias Voltage



Input and Output Capacitances vs Reverse Bias Voltage



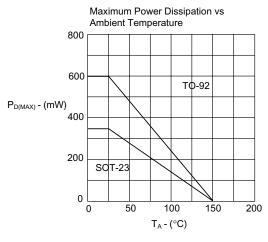
Volts - (V)

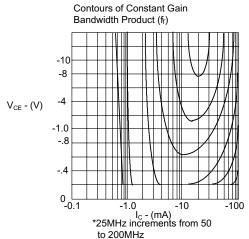
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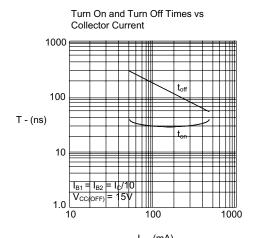
T_A = 25°C

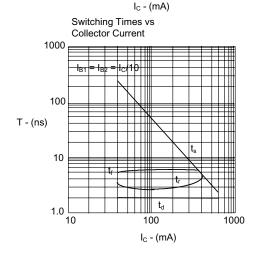
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Ordering Information:

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

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