



Micro Commercial Components

Micro Commercial Components  
 20736 Marilla Street Chatsworth  
 CA 91311  
 Phone: (818) 701-4933  
 Fax: (818) 701-4939

# PN2907A

## PNP General Purpose Amplifier

### 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
- 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
<b>OFF CHARACTERISTICS</b>				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage* ( $I_C=10\text{mAdc}$ , $I_B=0$ )	60		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C=10\mu\text{Adc}$ , $I_E=0$ )	60		Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ( $I_E=10\mu\text{Adc}$ , $I_C=0$ )	5.0		Vdc
$I_{BL}$	Base Cutoff Current ( $V_{CE}=30\text{Vdc}$ , $V_{BE}=0.5\text{Vdc}$ )		50	nAdc
$I_{CEX}$	Collector Cutoff Current ( $V_{CE}=30\text{Vdc}$ , $V_{BE}=0.5\text{Vdc}$ )		50	nAdc
$I_{CBO}$	Collector Cutoff Current ( $V_{CB}=50\text{Vdc}$ , $I_E=0$ ) ( $V_{CB}=50\text{Vdc}$ , $I_E=0$ , $T_A=150^\circ\text{C}$ )		0.1 10.0	$\mu\text{Adc}$

### ON CHARACTERISTICS

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

### SMALL-SIGNAL CHARACTERISTICS

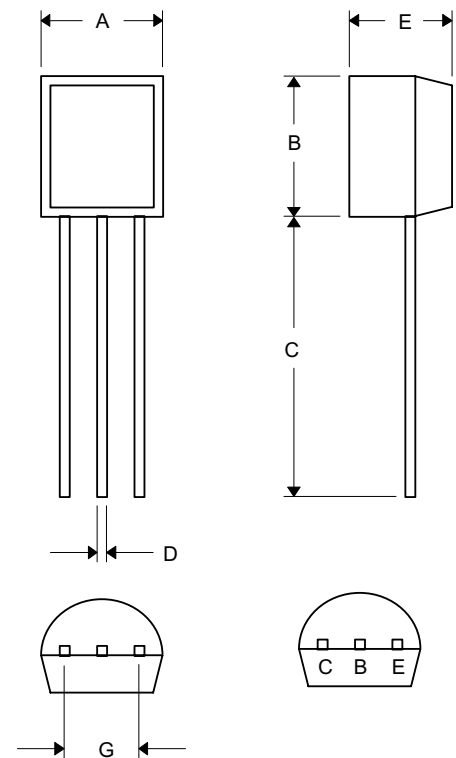
$f_T$	Current Gain-Bandwidth Product ( $I_C=50\text{mAdc}$ , $V_{CE}=20\text{Vdc}$ , $f=100\text{MHz}$ )	200		MHz
$C_{cbo}$	Output Capacitance ( $V_{CB}=10\text{Vdc}$ , $I_E=0$ , $f=100\text{kHz}$ )		8.0	pF
$C_{ibo}$	Input Capacitance ( $V_{EB}=2.0\text{Vdc}$ , $I_C=0$ , $f=100\text{kHz}$ )		30.0	pF

### SWITCHING CHARACTERISTICS

$t_d$	Delay Time	( $V_{CC}=3.0\text{Vdc}$ , $I_C=150\text{mAdc}$ )	10	ns
$t_r$	Rise Time	( $I_{B1}=15\text{mAdc}$ )	40	ns
$t_s$	Storage Time	( $V_{CC}=3.0\text{Vdc}$ , $I_C=150\text{mAdc}$ )	80	ns
$t_f$	Fall Time	( $I_{B1}=I_{B2}=15\text{mAdc}$ )	30	ns

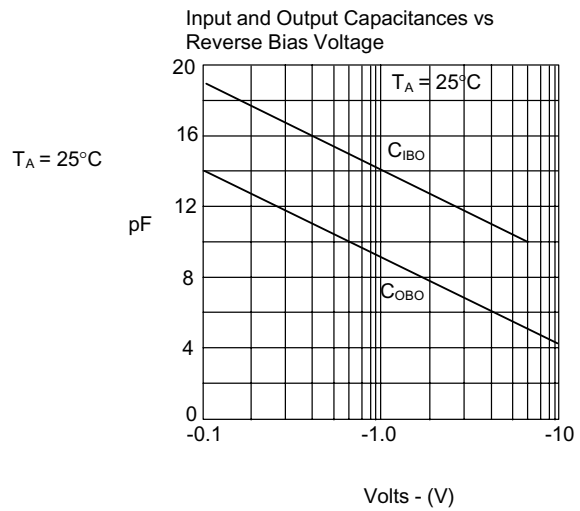
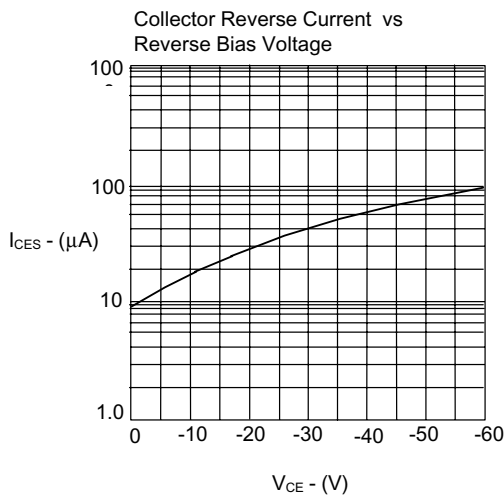
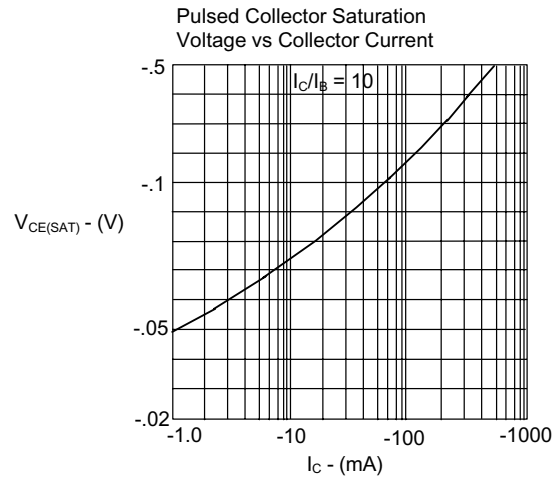
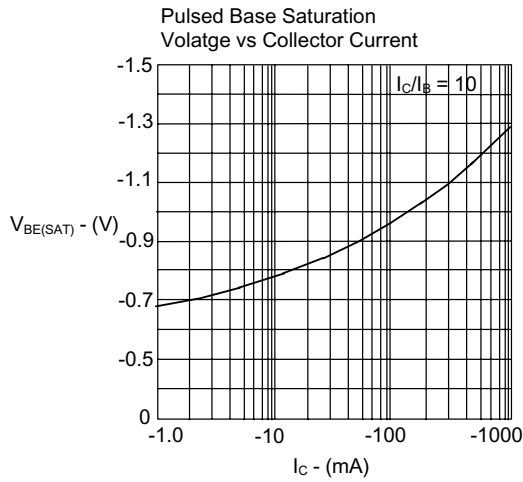
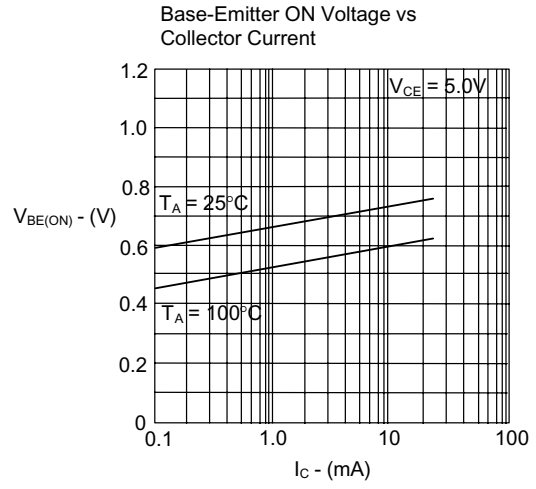
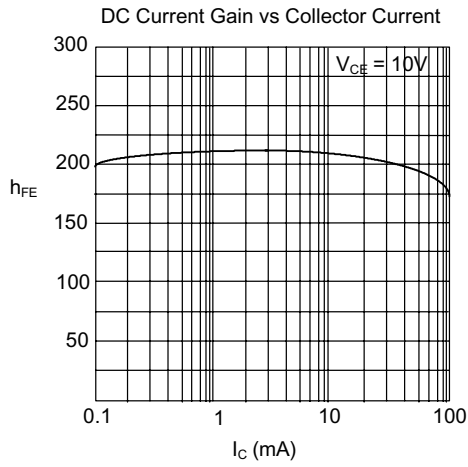
\*Pulse Width  $\leq 300\mu\text{s}$ , Duty Cycle  $\leq 2.0\%$

### TO-92



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	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	

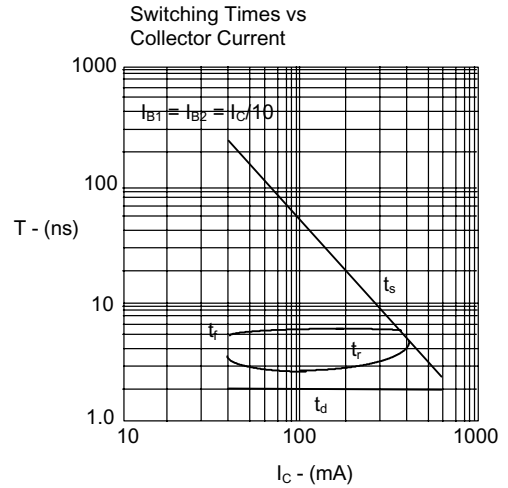
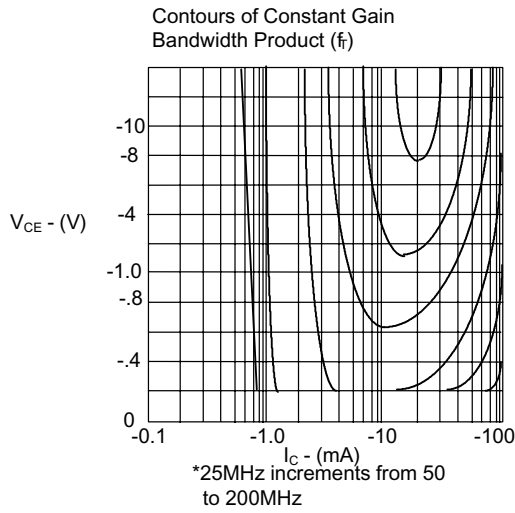
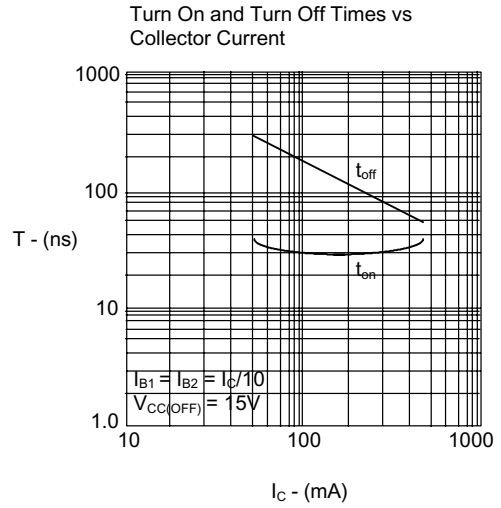
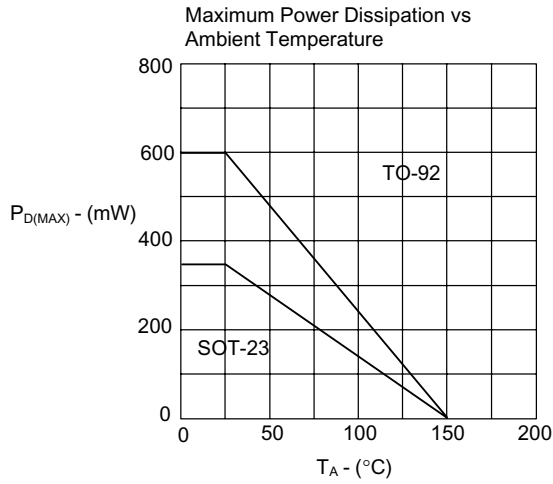
[www.mccsemi.com](http://www.mccsemi.com)



# PN2907A



Micro Commercial Components





Micro Commercial Components

## Ordering Information

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

### \*\*\*IMPORTANT NOTICE\*\*\*

*Micro Commercial Components Corp.* reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. *Micro Commercial Components Corp.* does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold *Micro Commercial Components Corp.* and all the companies whose products are represented on our website, harmless against all damages.

### \*\*\*APPLICATIONS DISCLAIMER\*\*\*

Products offer by *Micro Commercial Components Corp.* are not intended for use in Medical, Aerospace or Military Applications.