

## MPSA92

### Features

- Through Hole Package
- Operating & Storage Temperature: -55°C to +150°C
- Marking : A92
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensivity Level 1

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
--------	-----------	-----	-----	-------

#### OFF CHARACTERISTICS

$V_{(BR)CEO}$	Collector-Emmitter Breakdown Voltage* ( $I_C = -1.0\text{mA}$ , $I_B = 0$ )	-300		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C = -100\mu\text{A}$ , $I_E = 0$ )	-300		Vdc
$V_{(BR)EBO}$	Emitter -Base Breakdown Voltage ( $I_E = -10\mu\text{A}$ , $I_C = 0$ )	-5.0		Vdc
$I_{EBO}$	Emitter Cutoff Current ( $V_{EB} = -3.0\text{Vdc}$ , $I_C = 0$ )		-0.25	$\mu\text{A}$
$I_{CBO}$	Collector Cutoff Current ( $V_{CB} = -200\text{Vdc}$ , $I_E = 0$ )		-0.25	$\mu\text{A}$

#### ON CHARACTERISTICS

$h_{FE}$	DC Current Gain* ( $I_C = -1.0\text{mA}$ , $V_{CE} = -10\text{Vdc}$ ) ( $I_C = -10\text{mA}$ , $V_{CE} = -10\text{Vdc}$ ) ( $I_C = -50\text{mA}$ , $V_{CE} = -10\text{Vdc}$ )	25 80 25	250	
$V_{CE(sat)}$	Collector-Emmitter Saturation Voltage ( $I_C = -20\text{mA}$ , $I_B = -2.0\text{mA}$ )		-0.5	Vdc
$V_{BE(sat)}$	Base-Emmitter Saturation Voltage ( $I_C = -20\text{mA}$ , $I_B = -2.0\text{mA}$ )		-0.9	Vdc

#### SMALL-SIGNAL CHARACTERISTICS

$f_T$	Current Gain-Bandwidth Product ( $I_C = -10\text{mA}$ , $V_{CE} = -5\text{Vdc}$ , $f = 30\text{MHz}$ )	50		MHz
$C_{cb}$	Collector-Base Capacitance ( $V_{CB} = -20\text{Vdc}$ , $I_E = 0$ , $f = 1.0\text{MHz}$ )		6.0	pF

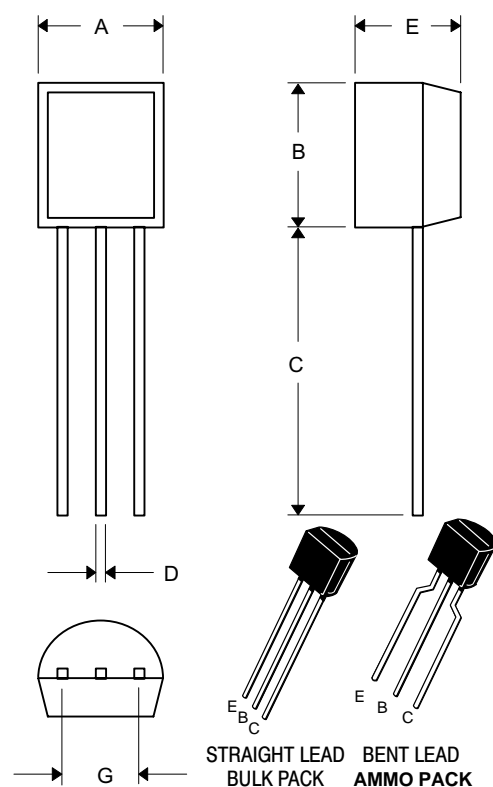
\*Pulse Width  $\leq 300\mu\text{s}$ , Duty Cycle  $\leq 2.0\%$

#### MAXIMUM RATINGS

Symbol	Characteristic	MPSA92	Unit
$V_{CEO}$	Collector-Emmitter Voltage	-300	Vdc
$V_{CBO}$	Collector-Base Voltage	-300	Vdc
$V_{EBO}$	Emitter-Base Voltage	-5.0	Vdc
$I_C$	Collector Current — Continuous	-300	mA
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	200	°C/W
$R_{\theta JC}$	Thermal Resistance, Junction to Case	83.3	°C/W
$P_D$	Total Device Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°C	625 5.0	mW mW/°C
$P_D$	Total Device Dissipation @ $T_C = 25^\circ\text{C}$ Derate above 25°C	1.5 12	Watts mW/°C

## PNP Silicon High Voltage Transistor

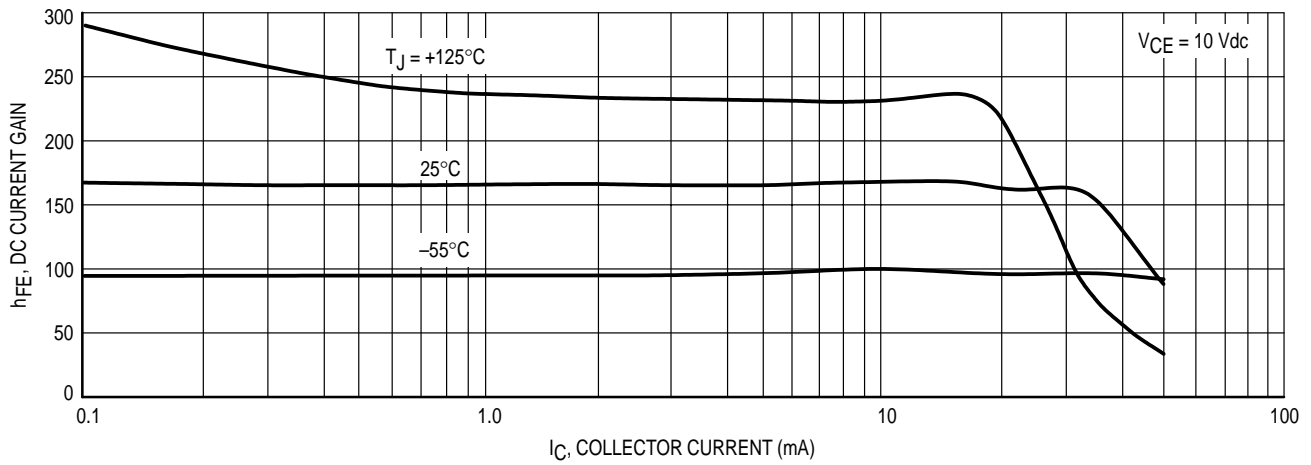
### TO-92



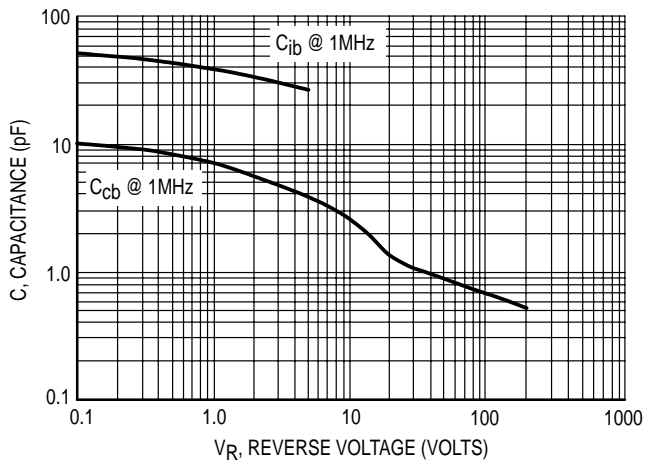
#### DIMENSIONS

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

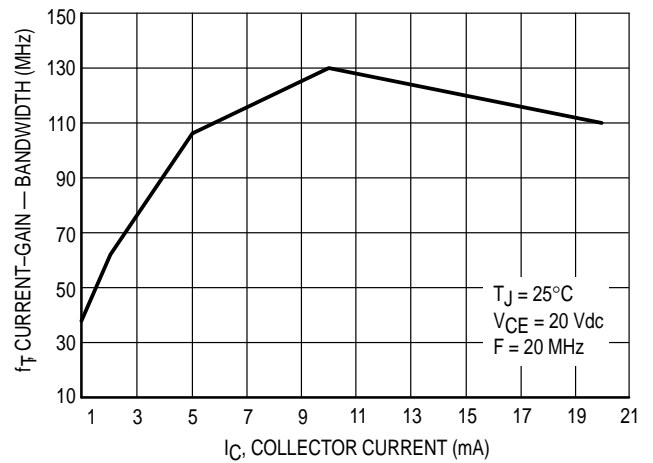
\* For ammo packing detailed specification, click here to visit our website of product packaging for details.



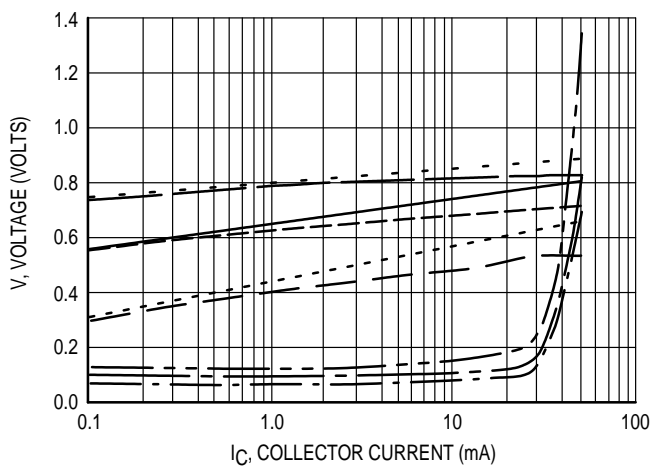
**Figure 1. DC Current Gain**



**Figure 2. Capacitance**



**Figure 3. Current-Gain — Bandwidth**



**Figure 4. "ON" Voltages**

- $V_{CE(sat)}$  @ 25°C,  $I_C/I_B = 10$
- $V_{CE(sat)}$  @ 125°C,  $I_C/I_B = 10$
- $V_{CE(sat)}$  @ -55°C,  $I_C/I_B = 10$
- $V_{BE(sat)}$  @ 25°C,  $I_C/I_B = 10$
- $V_{BE(sat)}$  @ 125°C,  $I_C/I_B = 10$
- $V_{BE(sat)}$  @ -55°C,  $I_C/I_B = 10$
- $V_{BE(on)}$  @ 25°C,  $V_{CE} = 10$  V
- $V_{BE(on)}$  @ 125°C,  $V_{CE} = 10$  V
- $V_{BE(on)}$  @ -55°C,  $V_{CE} = 10$  V

## Ordering Information :

Device	Packing
Part Number-AP	Ammo Packing: 20Kpcs/Carton
Part Number-BP	Bulk: 100Kpcs/Carton

### \*\*\*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.

### \*\*\*LIFE SUPPORT\*\*\*

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

### \*\*\*CUSTOMER AWARENESS\*\*\*

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Micro Commercial Components \(MCC\):](#)

[MPSA92-AP](#) [MPSA92-BP](#) [MPSA92-B](#)