



Micro Commercial Components

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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)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1

PNP Silicon High Voltage Transistor

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
$V_{(BR)EBO}$	Emmitter -Base Breakdown Voltage ($I_E = -10\mu\text{A}$, $I_C = 0$)	-5.0		Vdc
I_{EBO}	Emmitter Cutoff Current ($V_{EB} = -3.0\text{V}$, $I_C = 0$)		-0.25	μA
I_{CBO}	Collector Cutoff Current ($V_{CB} = -200\text{V}$, $I_E = 0$)		-0.25	μA

ON CHARACTERISTICS

h_{FE}	DC Current Gain* ($I_C = -1.0\text{mA}$, $V_{CE} = -10\text{V}$) ($I_C = -10\text{mA}$, $V_{CE} = -10\text{V}$) ($I_C = -50\text{mA}$, $V_{CE} = -10\text{V}$)	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

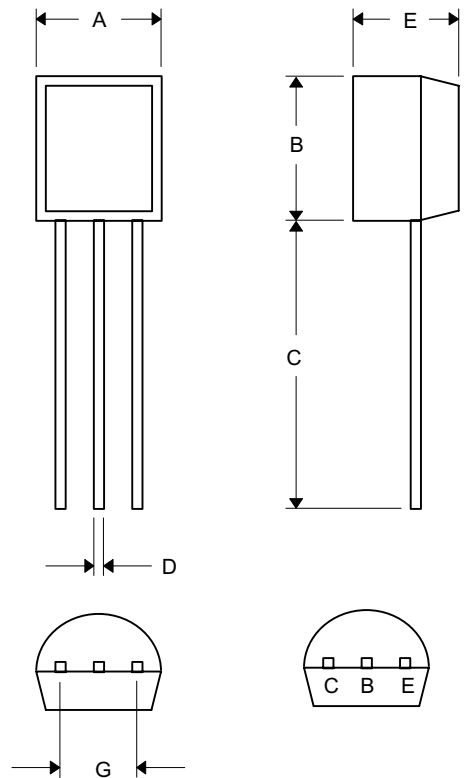
f_T	Current Gain-Bandwidth Product ($I_C = -10\text{mA}$, $V_{CE} = -5\text{V}$, $f = 30\text{MHz}$)	50		MHz
C_{cb}	Collector-Base Capacitance ($V_{CB} = -20\text{V}$, $I_E = 0$, $f = 1.0\text{MHz}$)		6.0	pF

*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}	Emmitter-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

TO-92



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	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	.096	.104	2.44	2.64	

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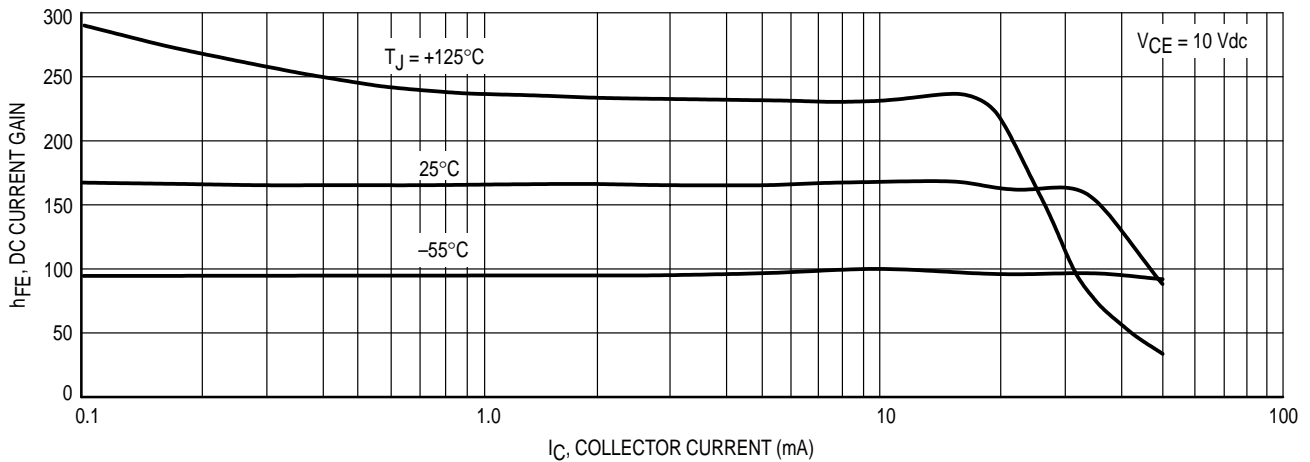


Figure 1. DC Current Gain

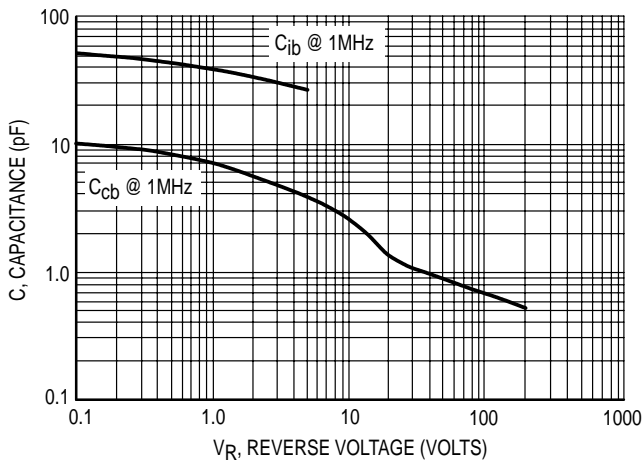


Figure 2. Capacitance

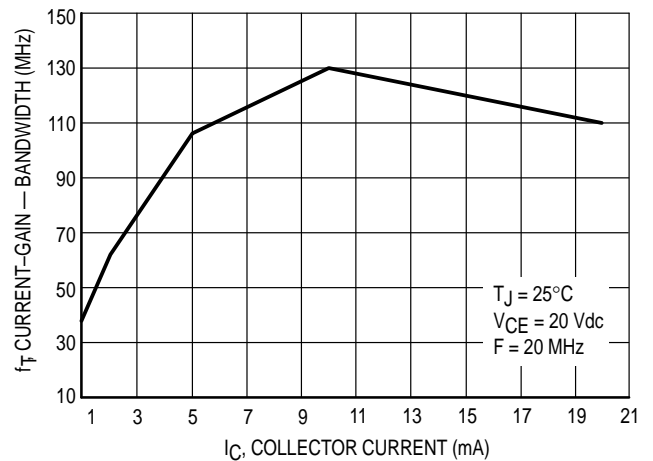


Figure 3. Current-Gain — Bandwidth

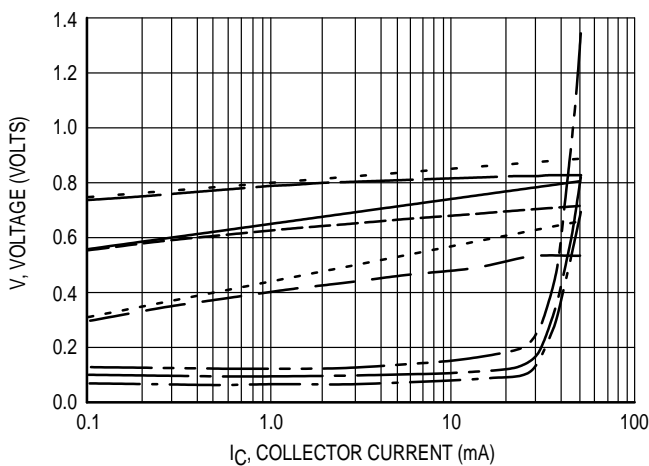


Figure 4. "ON" Voltages

- VCE(sat) @ 25°C, IC/IB = 10
- VCE(sat) @ 125°C, IC/IB = 10
- VCE(sat) @ -55°C, IC/IB = 10
- VBE(sat) @ 25°C, IC/IB = 10
- VBE(sat) @ 125°C, IC/IB = 10
- VBE(sat) @ -55°C, IC/IB = 10
- VBE(on) @ 25°C, VCE = 10 V
- VBE(on) @ 125°C, VCE = 10 V
- VBE(on) @ -55°C, VCE = 10 V



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Ordering Information

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

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