

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
- Moisture Sensitivity Level 1

PNP Silicon High Voltage Transistor

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage* ($I_C=-1.0mA_{dc}$, $I_B=0$)	-300		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=-100\mu A_{dc}$, $I_E=0$)	-300		Vdc
$V_{(BR)EBO}$	Emitter -Base Breakdown Voltage ($I_E=-10\mu A_{dc}$, $I_C=0$)	-5.0		Vdc
I_{EBO}	Emitter Cutoff Current ($V_{EB}=-3.0V_{dc}$, $I_C=0$)		-0.25	μA_{dc}
I_{CBO}	Collector Cutoff Current ($V_{CB}=-200V_{dc}$, $I_E=0$)		-0.25	μA_{dc}

ON CHARACTERISTICS

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

SMALL-SIGNAL CHARACTERISTICS

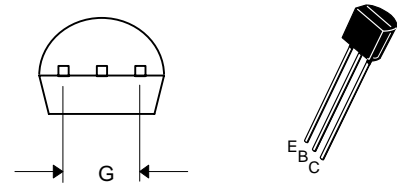
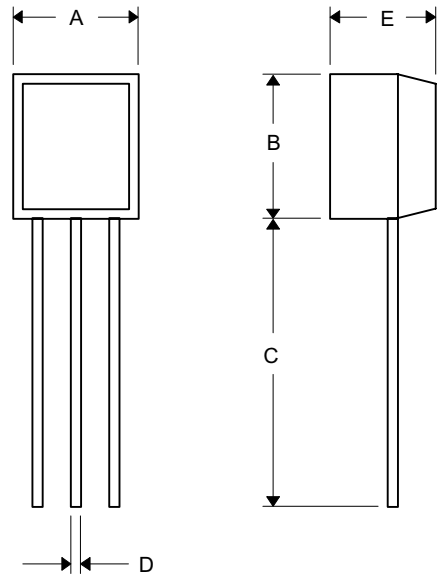
f_T	Current Gain-Bandwidth Product ($I_C=-10mA_{dc}$, $V_{CE}=-5V_{dc}$, $f=30MHz$)	50		MHz
C_{cb}	Collector-Base Capacitance ($V_{CB}=-20V_{dc}$, $I_E=0$, $f=1.0MHz$)		6.0	pF

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

MAXIMUM RATINGS

Symbol	Characteristic	MPSA92	Unit
V_{CEO}	Collector-Emitter 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 _{dc}
$R_{\theta JA}$	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 @ $T_A = 25^\circ C$	625	mW
	Derate above 25°C	5.0	mW/°C
P_D	Total Device Dissipation @ $T_C = 25^\circ C$	1.5	Watts
	Derate above 25°C	12	mW/°C

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	.096	.104	2.44	2.64	

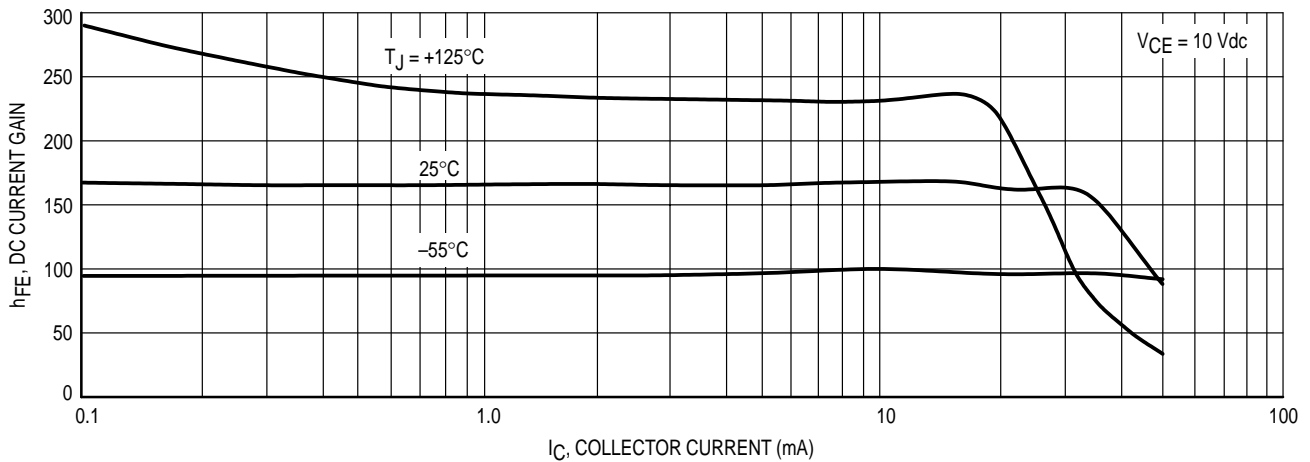


Figure 1. DC Current Gain

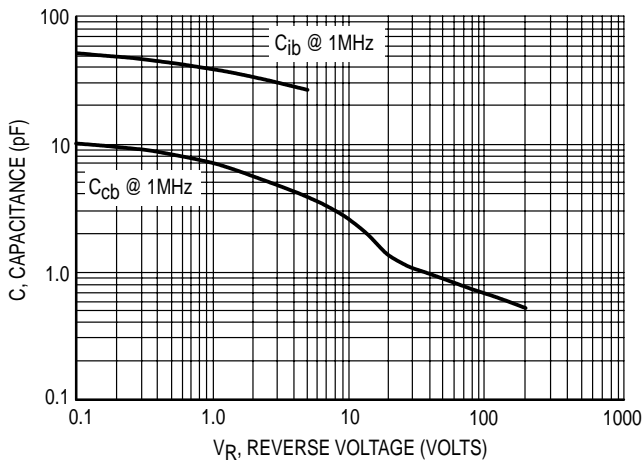


Figure 2. Capacitance

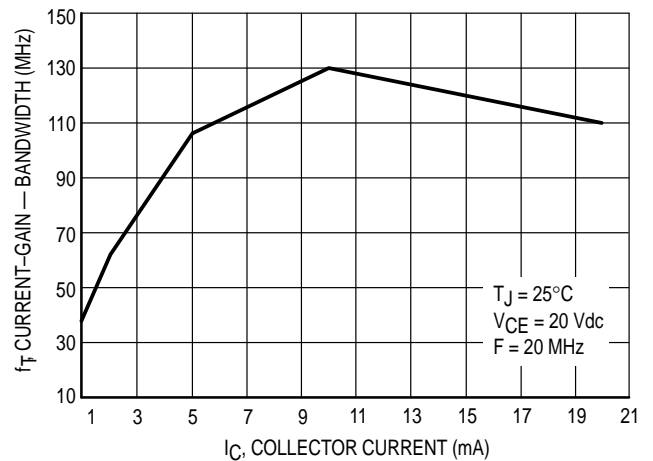


Figure 3. Current-Gain — Bandwidth

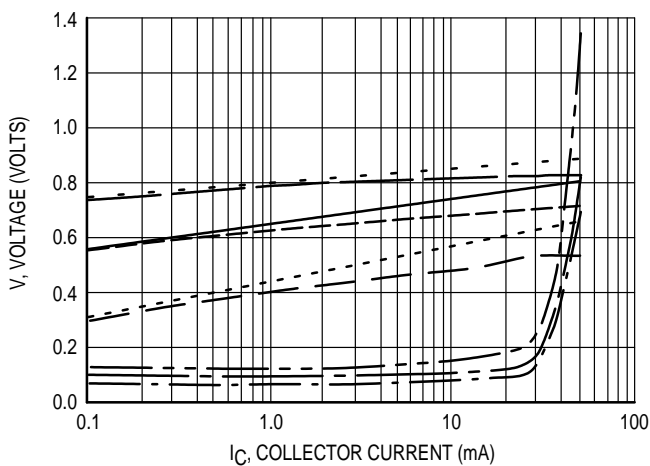


Figure 4. "ON" Voltages

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

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