Micro Commercial Components

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MPSA92

PNP Silicon High Voltage Transistor

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

Electrical Characteristics @ 25°C Unless Otherwise Specified

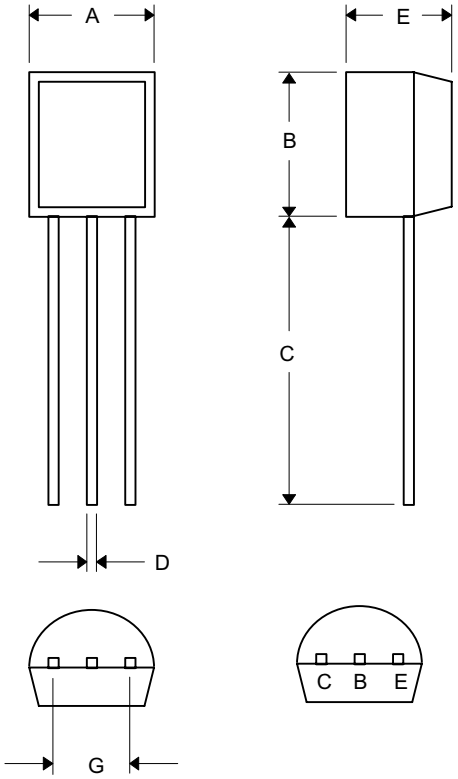
Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage* (I_C=-1.0mAdc, I_B=0)	-300		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage (I_C=-100μAdc, I_E=0)	-300		Vdc
$V_{(BR)EBO}$	Emitter -Base Breakdown Voltage (I_E=-10μAdc, I_C=0)	-5.0		Vdc
I_{EBO}	Emitter Cutoff Current (V_{EB}=-3.0Vdc, I_C=0)		-0.25	uAdc
I_{CBO}	Collector Cutoff Current (V_{CB}=-200Vdc, I_E=0)		-0.25	uAdc
ON CHARACTERISTICS				
h_{FE}	DC Current Gain* (I_C=-1.0mAdc, V_{CE}=-10Vdc) (I_C=-10mAdc, V_{CE}=-10Vdc) (I_C=-50mAdc, V_{CE}=-10Vdc)	25 80 25	 250 	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage (I_C=-20mAdc, I_B=-2.0mAdc)		-0.5	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage (I_C=-20mAdc, I_B=-2.0mAdc)		-0.9	Vdc
SMALL-SIGNAL CHARACTERISTICS				
f_T	Current Gain-Bandwidth Product (I_C=-10mAdc, V_{CE}=-5Vdc, f=30MHz)	50		MHz
C_{cb}	Collector-Base Capacitance (V_{CB}=-20Vdc, I_E=0, f=1.0MHz)		6.0	pF

*Pulse Width ≤ 300μs, Duty Cycle ≤ 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	mAdc
$R_{\theta JA}$	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°C Derate above 25°C	625 5.0	mW mW/°C
P_D	Total Device Dissipation @ T_C = 25°C Derate above 25°C	1.5 12	Watts mW/°C

TO-92



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
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	

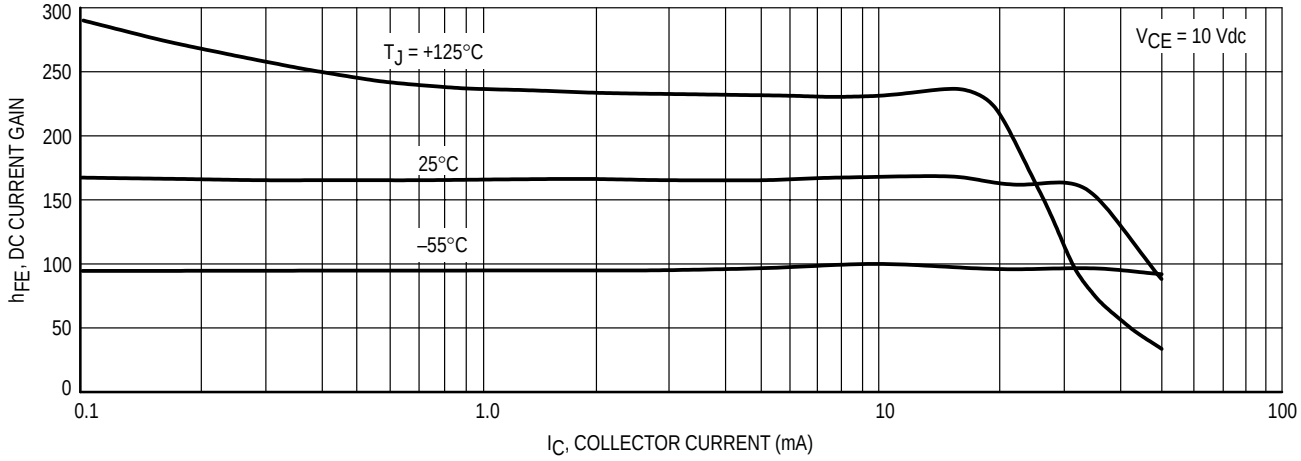


Figure 1. DC Current Gain

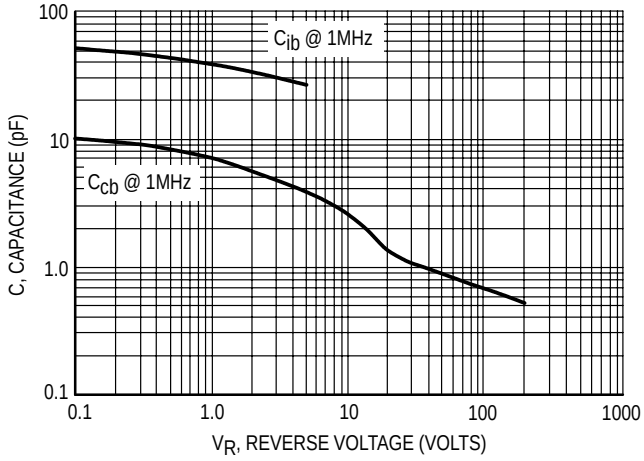


Figure 2. Capacitance

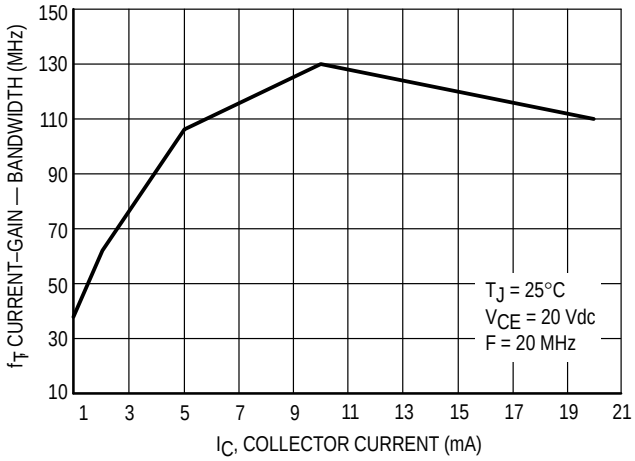
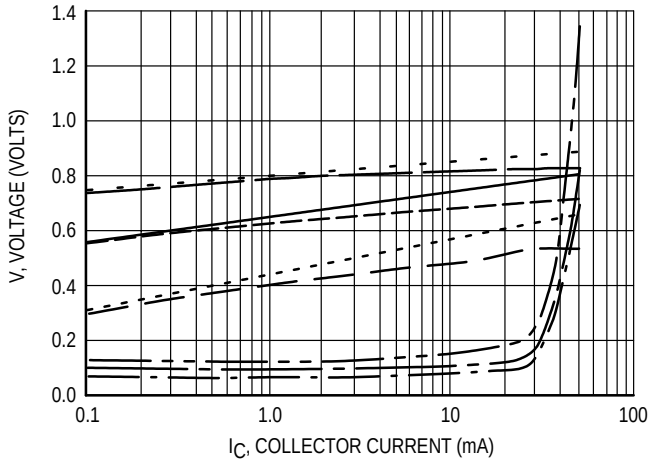


Figure 3. Current–Gain — Bandwidth



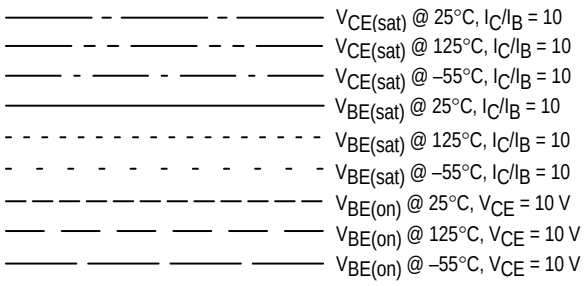


Figure 4. "ON" Voltages

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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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