

**Features**

- Complementary to MPSA42
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

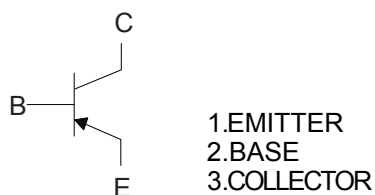
**Maximum Ratings @ 25°C Unless Otherwise Specified**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 200°C/W Junction to Ambient
- Thermal Resistance: 83.3°C/W Junction to Case

Parameter	Symbol	Rating	Unit	
Collector-Base Voltage	$V_{CBO}$	-300	V	
Collector-Emitter Voltage	$V_{CEO}$	-300	V	
Emitter-Base Voltage	$V_{EBO}$	-5	V	
Continuous Collector Current	$I_C$	-300	mA	
Power Dissipation	$P_D$	$T_A=25^\circ\text{C}$ , Derate above 25°C	625	mW
			5	mW/°C
		$T_C=25^\circ\text{C}$ , Derate above 25°C	1.5	W
			12	mW/°C

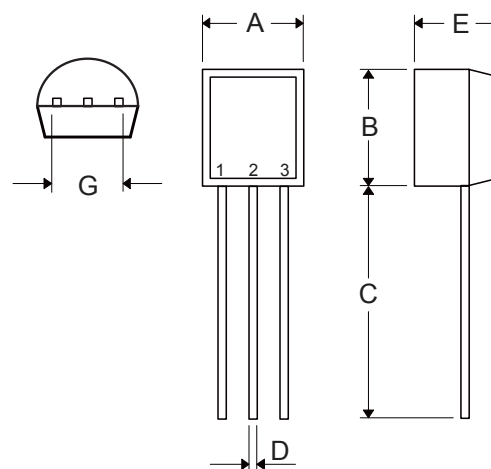
**Marking:**A92

**Internal Structure**



**PNP Silicon High Voltage Transistor**

TO-92



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.169	0.185	4.30	4.70	
B	0.169	0.185	4.30	4.70	
C	0.500	-----	12.70	-----	
D	0.015	0.022	0.38	0.55	
E	0.130	0.146	3.30	3.70	
G	0.095	0.105	2.42	2.67	Straight Lead
	0.173	0.220	4.40	5.60	Bent

**Electrical Characteristics @ T<sub>A</sub>=25°C Unless Otherwise Specified**

Parameter	Symbol	Min	Typ	Max	Units	Conditions
Collector-Base Breakdown Voltage	V <sub>(BR)CBO</sub>	-300			V	I <sub>C</sub> =-100μA, I <sub>E</sub> =0
Collector-Emitter Breakdown Voltage*	V <sub>(BR)CEO</sub>	-300			V	I <sub>C</sub> =-1mA, I <sub>B</sub> =0
Emitter-Base Breakdown Voltage	V <sub>(BR)EBO</sub>	-5			V	I <sub>E</sub> =-10μA, I <sub>C</sub> =0
Collector Cut-off Current	I <sub>CBO</sub>			-0.25	μA	V <sub>CB</sub> =-200V, I <sub>E</sub> =0
Emitter Cut-off Current	I <sub>EBO</sub>			-0.25	μA	V <sub>EB</sub> =-3V, I <sub>C</sub> =0
DC Current Gain*	h <sub>FE(1)</sub>	25				V <sub>CE</sub> =-10V, I <sub>C</sub> =-1mA
	h <sub>FE(2)</sub>	80		250		V <sub>CE</sub> =-10V, I <sub>C</sub> =-10mA
	h <sub>FE(3)</sub>	25				V <sub>CE</sub> =-10V, I <sub>C</sub> =-50mA
Collector-Emitter Saturation Voltage*	V <sub>CE(sat)</sub>			-0.5	V	I <sub>C</sub> =-20mA, I <sub>B</sub> =-2mA
Base-Emitter Saturation Voltage*	V <sub>BE(sat)</sub>			-0.9	V	I <sub>C</sub> =-20mA, I <sub>B</sub> =-2mA
Transition Frequency	f <sub>T</sub>	50			MHz	V <sub>CE</sub> =-5V, I <sub>C</sub> =-10mA, f=30MHz
Collector Output Capacitance	C <sub>ob</sub>			6	pF	V <sub>CB</sub> =-20V, I <sub>E</sub> =0, f=1MHz

\*.Pulse test: Pulse Width≤300μs,Duty Cycle≤2.0%.

**Curve Characteristics**

Fig. 1 - Static Characteristics

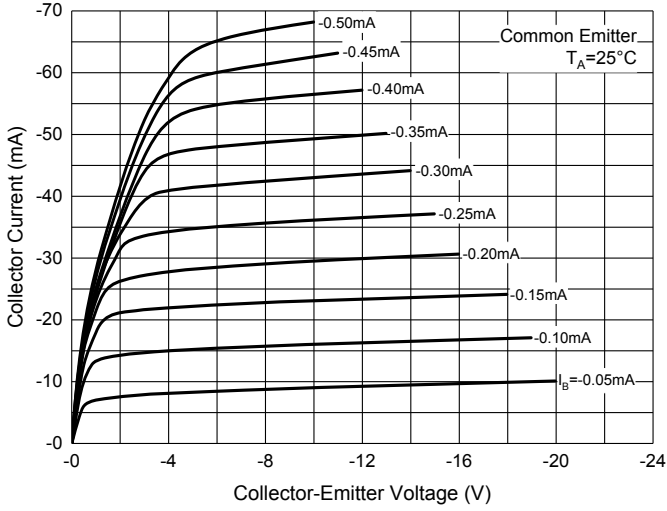


Fig. 2 - DC Current Gain Characteristics

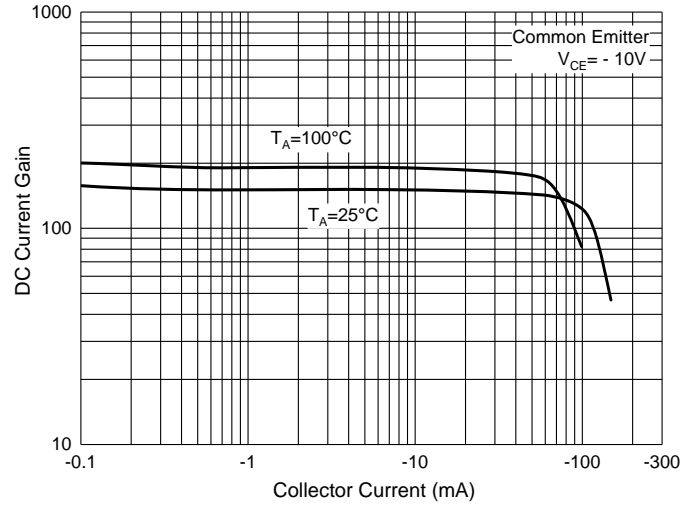


Fig. 3 - Collector-Emitter Saturation Voltage Characteristics

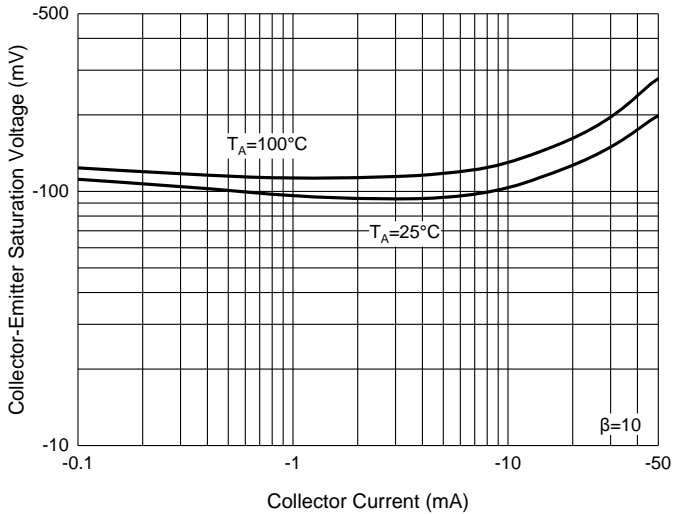


Fig. 4 - Base-Emitter Saturation Voltage Characteristics

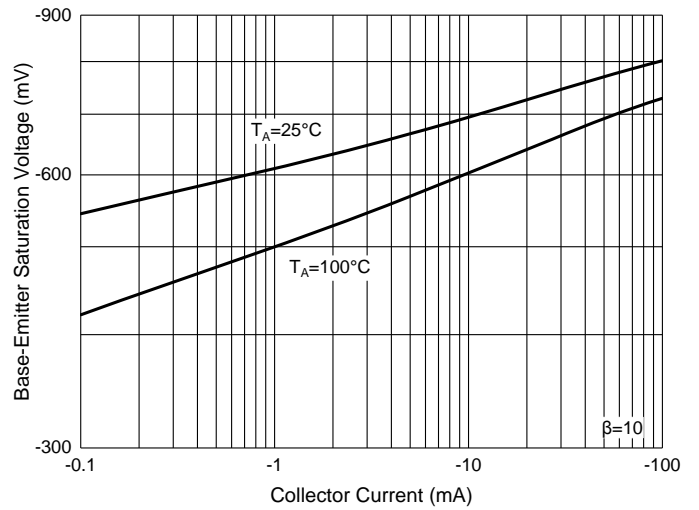


Fig. 5 - Base-Emitter Voltage Characteristics

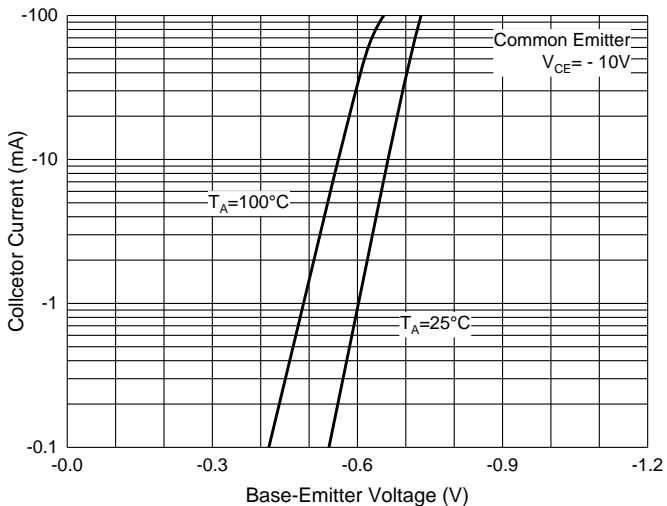
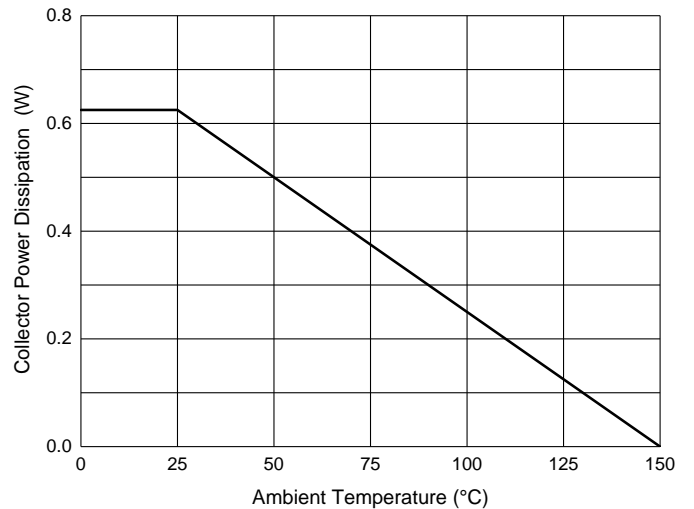


Fig. 6 - Collector Power Derating Curve



## Ordering Information

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

Note : Adding "-HF" Suffix for Halogen Free, eg. Part Number-TP-HF

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