

Features

- Complementary to MPSA43
- 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)

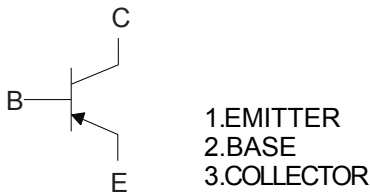
Maximum Ratings @ 25°C Unless Otherwise Specified

- 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

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	-200	V
Collector-Emitter Voltage	V_{CEO}	-200	V
Emitter-Base Voltage	V_{EBO}	-5	V
Continuous Collector Current	I_C	-500	mA
Power Dissipation	P_D	625	mW

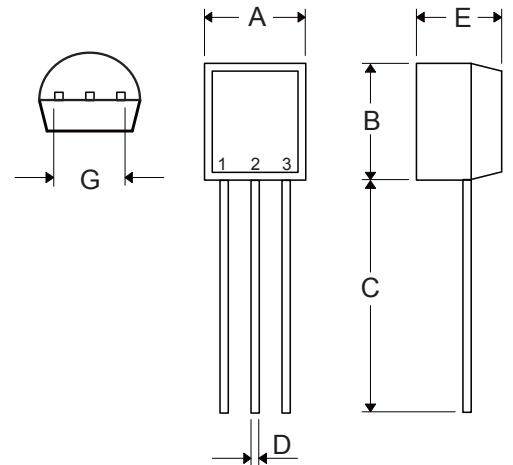
Marking:A93

Internal Structure



**Epitaxial Planar
PNP
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_A=25°C Unless Otherwise Specified

Parameter	Symbol	Min	Typ	Max	Units	Conditions
Collector-Base Breakdown Voltage	V _{(BR)CBO}	-200			V	I _C =-100μA, I _E =0
Collector-Emitter Breakdown Voltage*	V _{(BR)CEO}	-200			V	I _C =-1mA, I _B =0
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	-5			V	I _E =-100μA, I _C =0
Collector Cut-off Current	I _{CBO}			-0.25	μA	V _{CB} =-150V, I _E =0
Emitter Cut-off Current	I _{EBO}			-0.1	μA	V _{EB} =-3V, I _C =0
DC Current Gain*	h _{FE(1)}	25				V _{CE} =-10V, I _C =-1mA
	h _{FE(2)}	40				V _{CE} =-10V, I _C =-10mA
	h _{FE(3)}	25				V _{CE} =-10V, I _C =-30mA
Collector-Emitter Saturation Voltage*	V _{CE(sat)}			-0.5	V	I _C =-20mA, I _B =-2mA
Base-Emitter Saturation Voltage*	V _{BE(sat)}			-0.9	V	I _C =-20mA, I _B =-2mA
Transition Frequency	f _T	50			MHz	V _{CE} =-20V, I _C =-10mA, f=100MHz
Collector Output Capacitance	C _{ob}			8	pF	V _{CB} =-20V, I _E =0, f=1MHz

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

Curve Characteristics

Fig. 1 - Static Characteristics

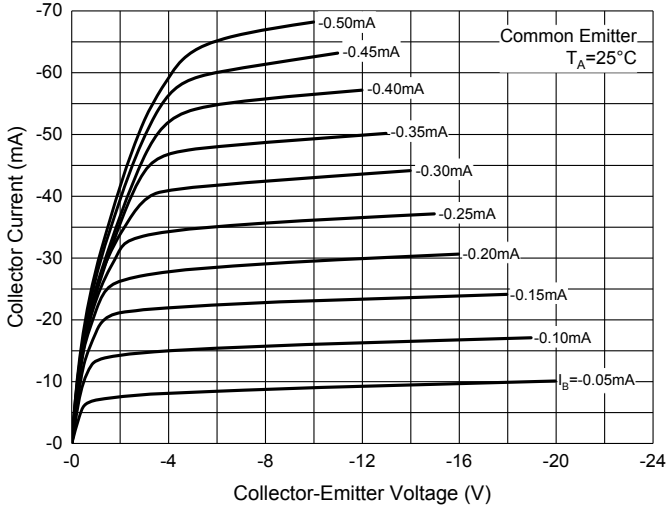


Fig. 2 - DC Current Gain Characteristics

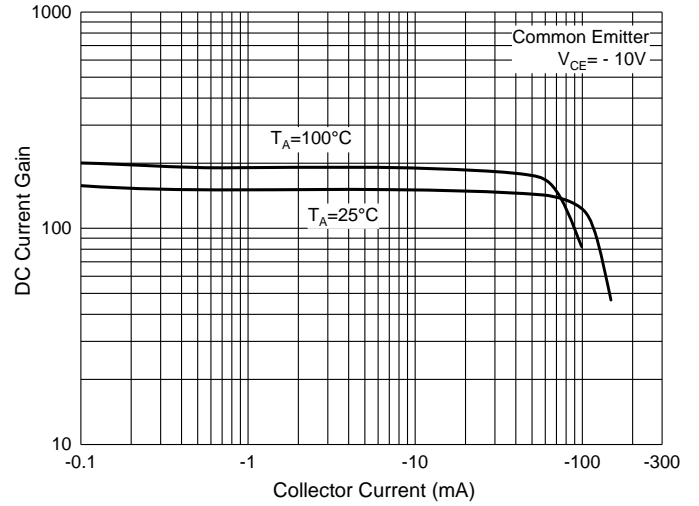


Fig. 3 - Collector-Emitter Saturation Voltage Characteristics

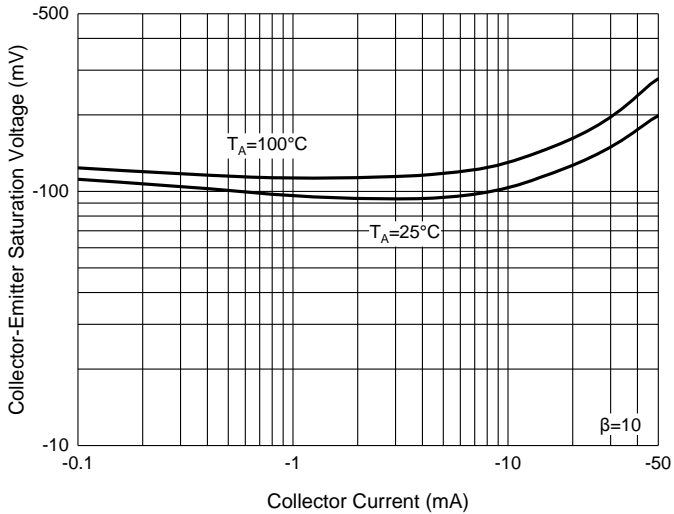


Fig. 4 - Base-Emitter Saturation Voltage Characteristics

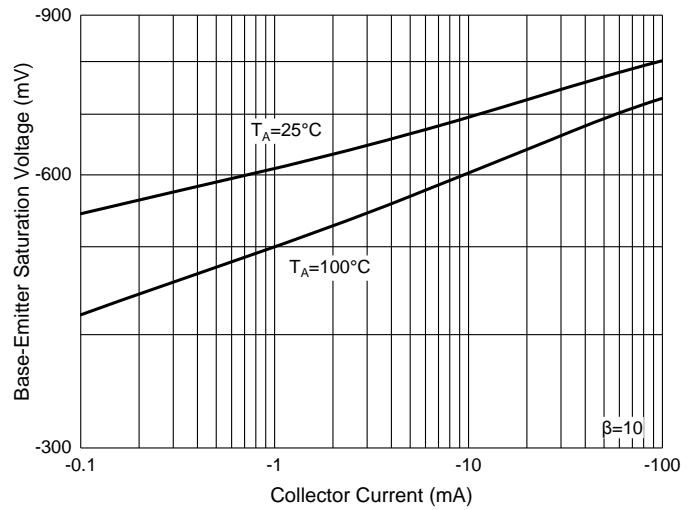


Fig. 5 - Base-Emitter Voltage Characteristics

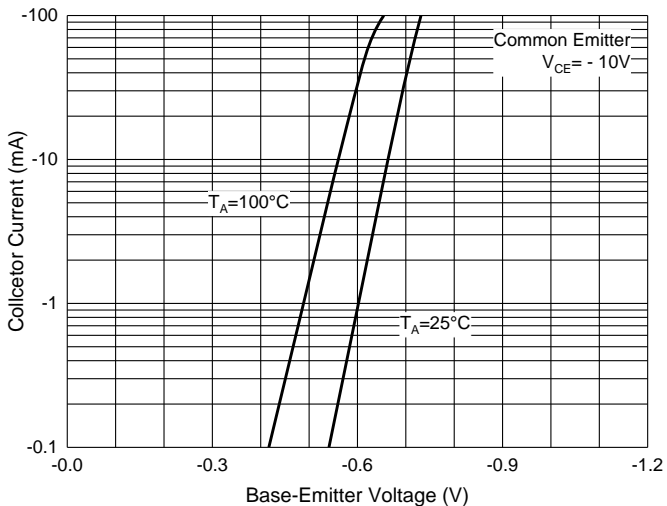
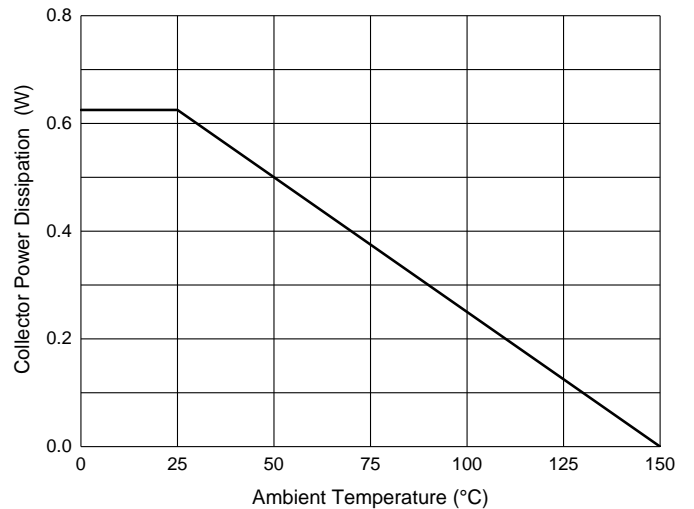


Fig. 6 - Collector Power Derating Curve



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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