



Micro Commercial Components

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20736 Marilla Street Chatsworth
CA 91311

Phone: (818) 701-4933

Fax: (818) 701-4939

2SA684

PNP Epitaxial Silicon Transistor

Features

- Low Frequency Power Amplifier.
- 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
- Halogen free available upon request by adding suffix "-HF"

Maximum Ratings

Symbol	Rating	Rating	Unit
V _{CEO}	Collector-Emitter Voltage	-50	V
V _{CBO}	Collector-Base Voltage	-60	V
V _{EBO}	Emitter-Base Voltage	-5.0	V
I _C	Collector Current	-1.0	A
P _C	Collector power dissipation	0.75	W
T _J	Junction Temperature	-55 to +150	°C
T _{STG}	Storage Temperature	-55 to +150	°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
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OFF CHARACTERISTICS

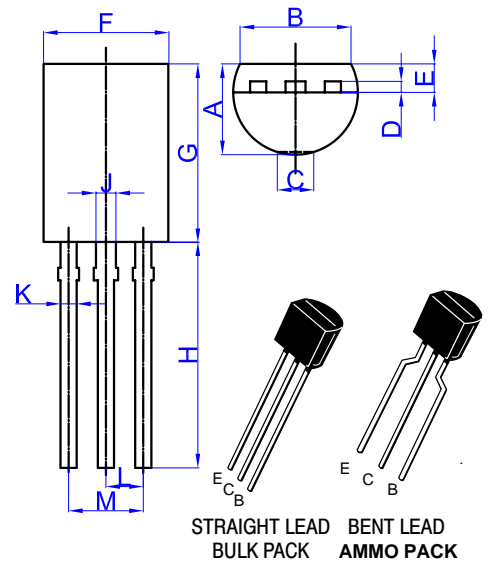
BV _{CBO}	Collector-Base Breakdown Voltage (I _C =-10 μAdc, I _E =0)	-60	---	---	Vdc
BV _{CEO}	Collector-Emitter Breakdown Voltage (I _C =-2mAdc, I _B =0)	-50	---	---	Vdc
BV _{EBO}	Emitter-Base Breakdown Voltage (I _E =-10uAdc, I _C =0)	-5.0	---	---	Vdc
I _{CBO}	Collector Cutoff Current (V _{CB} =-20Vdc, I _E =0)	---	---	-100	nAdc

ON CHARACTERISTICS

h _{FE}	DC Current gain (I _C =-500mAdc, V _{CE} =-10Vdc)	85	---	340	---
V _{BE(sat)}	Base-Emitter Saturation Voltage (I _B =-50mAdc, I _C =-500mAdc)	---	-0.85	-1.2	Vdc
V _{CE(sat)}	Collector-Emitter Saturation Voltage (I _C =-500mAdc, I _B =-50mAdc)	---	-0.2	-0.4	Vdc
f _T	Current Gain Bandwidth Product (V _{CE} =-10Vdc, I _C =50mAdc, f=200MHz)	---	200	---	MHz
C _{ob}	Output Capacitance (V _{CB} =-10Vdc, I _E =0, f=1.0MHz)	---	20	30	pF

(1) h_{FE} Classification Q: 85~170, R: 120~240, S:170~340

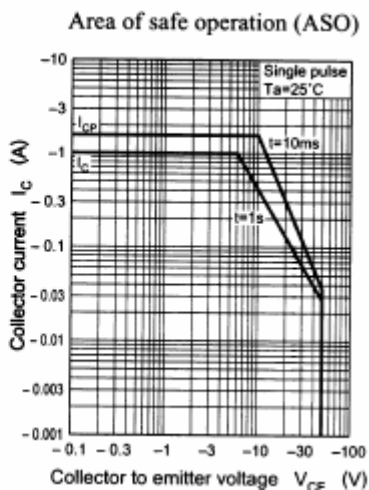
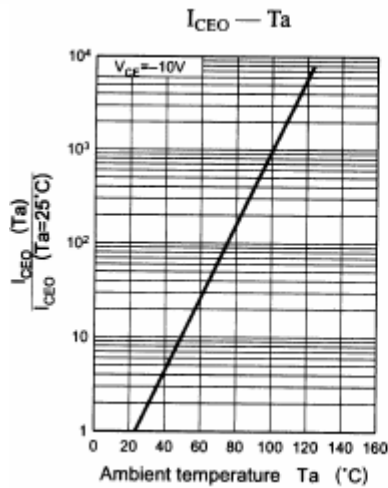
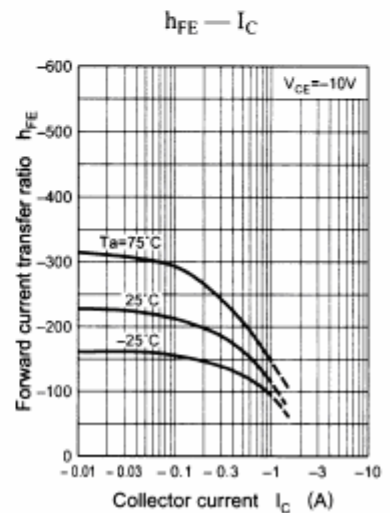
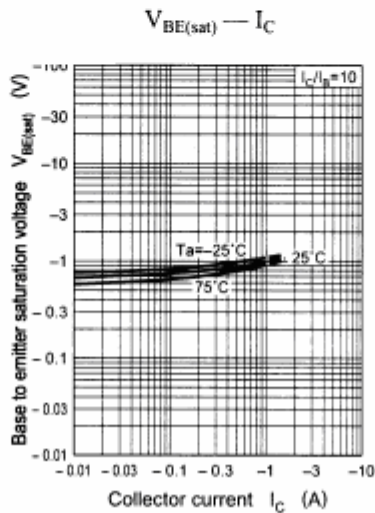
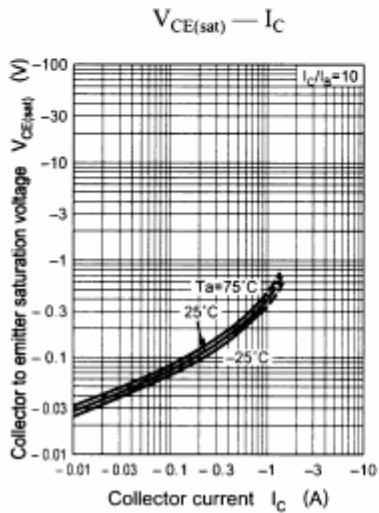
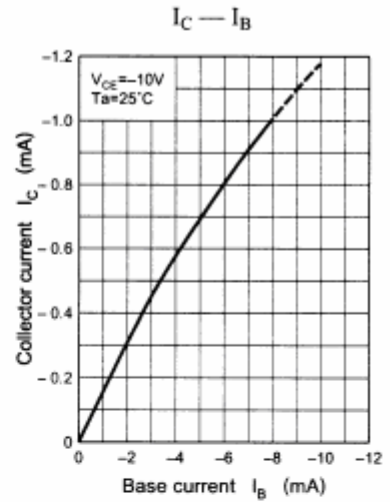
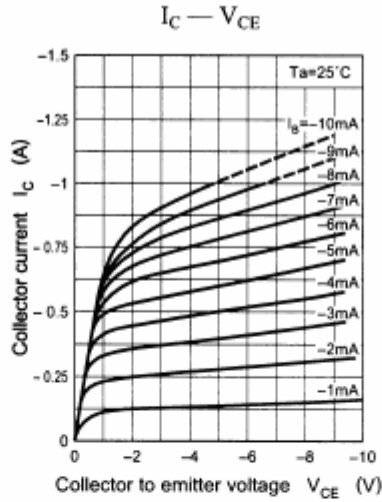
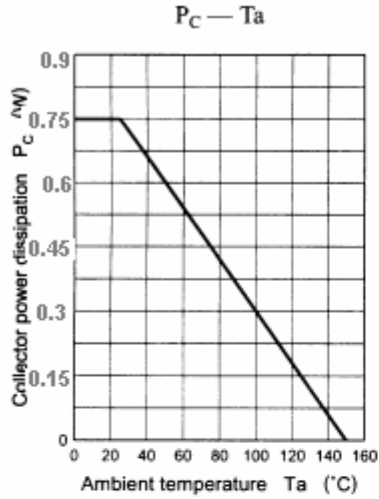
TO-92L



DIM	MM		INCHES		NOTE
	MIN	MAX	MIN	MAX	
A	3.700	4.100	.146	.161	
B	4.000	---	.157	---	
C	0.000	0.300	0.000	0.012	
D	0.350	0.450	.014	.018	
E	1.280	1.580	.050	.062	
F	4.700	5.100	.185	.201	
G	7.800	8.200	.307	.323	
H	13.80	14.20	.543	.559	
J	.600	.800	.024	.031	
K	0.350	.550	.014	.022	
L	1.270		.050		Straight Lead
	2.200	2.800	.086	.110	Bent Lead
M	2.440	2.640	.096	.104	Straight Lead
	4.400	5.600	.173	.220	Bent Lead

* For ammo packing detailed specification, click here to visit our website of product packaging for details.

Typical Characteristics





TM

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Ordering Information :

Device	Packing
Part Number-AP	Ammo Packing: 2Kpcs/Ammo Box
Part Number-BP	Bulk: 50Kpcs/Carton

Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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