



Micro Commercial Components

Micro Commercial Components
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2SA684

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	$^{\circ}\text{C}$
T_{STG}	Storage Temperature	-55 to +150	$^{\circ}\text{C}$

Electrical Characteristics @ 25 $^{\circ}\text{C}$ Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
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OFF CHARACTERISTICS

BV_{CBO}	Collector-Base Breakdown Voltage ($I_C = -10 \mu\text{A}$, $I_E = 0$)	-60	---	---	Vdc
BV_{CEO}	Collector-Emitter Breakdown Voltage ($I_C = -2\text{mA}$, $I_B = 0$)	-50	---	---	Vdc
BV_{EBO}	Emitter-Base Breakdown Voltage ($I_E = -10 \mu\text{A}$, $I_C = 0$)	-5.0	---	---	Vdc
I_{CBO}	Collector Cutoff Current ($V_{CB} = -20\text{Vdc}$, $I_E = 0$)	---	---	-100	nAdc

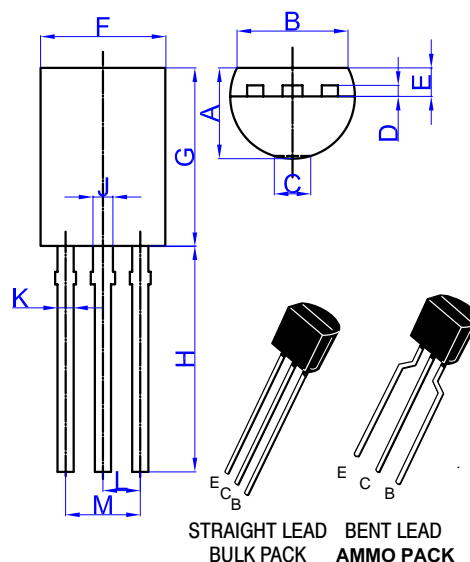
ON CHARACTERISTICS

h_{FE}	DC Current gain ($I_C = -500\text{mA}$, $V_{CE} = -10\text{Vdc}$)	85	---	340	---
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ($I_B = -50\text{mA}$, $I_C = -500\text{mA}$)	---	-0.85	-1.2	Vdc
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C = -500\text{mA}$, $I_B = -50\text{mA}$)	---	-0.2	-0.4	Vdc
f_T	Current Gain Bandwidth Product ($V_{CE} = -10\text{Vdc}$, $I_C = 50\text{mA}$, $f = 200\text{MHz}$)	---	200	---	MHz
C_{ob}	Output Capacitance ($V_{CB} = -10\text{Vdc}$, $I_E = 0$, $f = 1.0\text{MHz}$)	---	20	30	pF

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

PNP Epitaxial Silicon Transistor

TO-92L



DIMENSIONS					
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	.569	
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

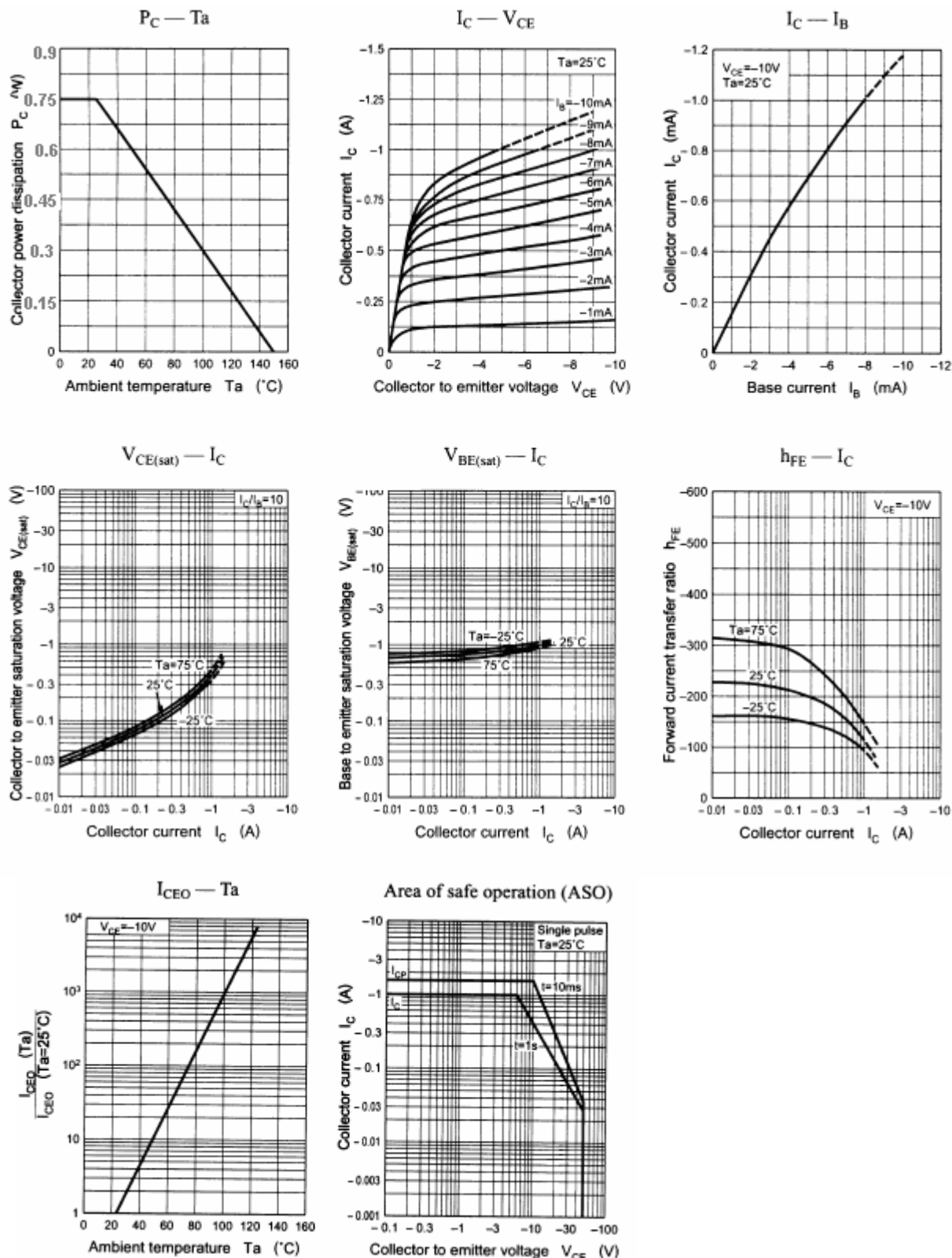
* For ammo packing detailed specification, click here to visit our website of product packaging for details.

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MCC

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Typical Characteristics



www.mccsemi.com

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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