



Micro Commercial Components



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M28S-B
M28S-C
M28S-D

Features

- Capable of 0.625Watts of Power Dissipation.
- Collector-current 1.0A
- Collector-base Voltage 40V
- Operating and storage junction temperature range: -55°C to +150°C
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Marking: M28S X
- Halogen free available upon request by adding suffix "-HF"

NPN Silicon
Plastic-Encapsulate
Transistor

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
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OFF CHARACTERISTICS

$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=1.0\text{mA}$, $I_B=0$)	20	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=0.1\text{mA}$, $I_E=0$)	40	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=0.1\text{mA}$, $I_C=0$)	6.0	---	Adc
I_{CBO}	Collector Cutoff Current ($V_{CB}=40\text{Vdc}$, $I_E=0$)	---	1.0	μAdc
I_{CEO}	Collector Cutoff Current ($V_{CE}=20\text{Vdc}$, $I_E=0$)	---	5.0	Vdc
I_{EBO}	Emitter Cutoff Current ($V_{EB}=5.0\text{Vdc}$, $I_C=0$)	---	0.1	μAdc

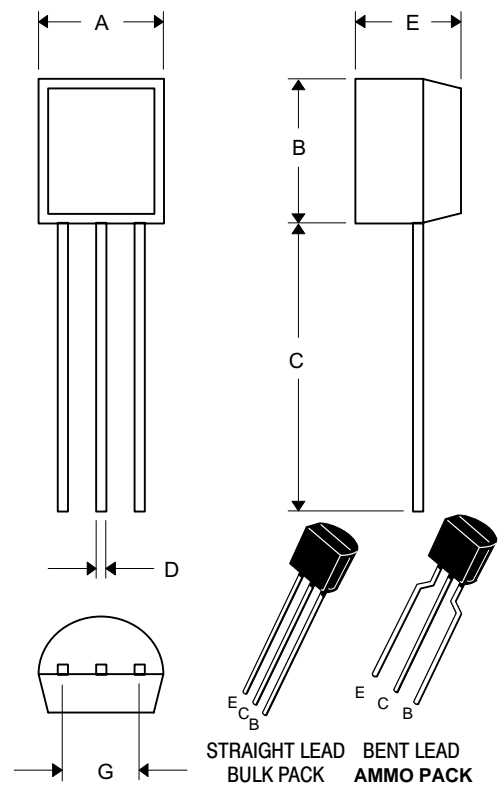
ON CHARACTERISTICS

h_{FE-1}	DC Current Gain ($I_C=1.0\text{mA}$, $V_{CE}=1.0\text{Vdc}$)	290	1000	---
h_{FE-2}	DC Current Gain ($I_C=100\text{mA}$, $V_{CE}=1.0\text{Vdc}$)	300	1000	---
h_{FE-3}	DC Current Gain ($I_C=300\text{mA}$, $V_{CE}=1.0\text{Vdc}$)	300	1000	---
h_{FE-4}	DC Current Gain ($I_C=500\text{mA}$, $V_{CE}=1.0\text{Vdc}$)	300	1000	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=600\text{mA}$, $I_B=20\text{mA}$)	---	0.55	Vdc
f_T	Transition Frequency ($V_{CE}=10\text{Vdc}$, $I_C=50\text{mA}$, $f=30\text{MHz}$)	100	---	MHz

CLASSIFICATION OF h_{FE}

Rank	B	C	D
Range	300-550	500-700	650-1000

TO-92



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.175	.185	4.45	4.70	
B	.175	.185	4.45	4.70	
C	.500	---	12.70	---	
D	.016	.020	0.41	0.63	
E	.135	.145	3.43	3.68	
G	.095	.105	2.42	2.67	Straight Lead
	.173	.220	4.40	5.60	Bent Lead

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



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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-AP-HF

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