



Micro Commercial Components



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2SA1020-O 2SA1020-Y

Features

- Halogen free available upon request by adding suffix "-HF"
- Collector of 0.9Watts of Power Dissipation.
- Collector-current -2.0A
- 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)

Electrical Characteristics @ 25°C Unless Otherwise Specified

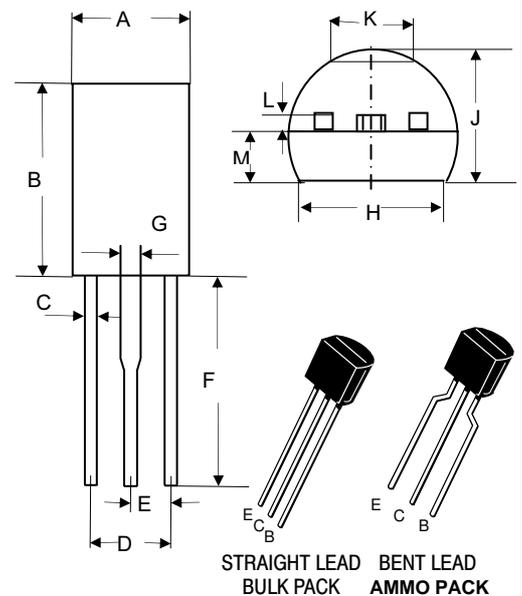
Symbol	Parameter	Min	Max	Units
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=-10mA_{dc}$, $I_B=0$)	-50	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=-100\mu A_{dc}$, $I_E=0$)	-50	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=-100mA_{dc}$, $I_C=0$)	-5.0	---	Vdc
I_{CBO}	Collector Cutoff Current ($V_{CB}=-50V_{dc}$, $I_E=0$)	---	-1.0	μA_{dc}
I_{EBO}	Emitter Cutoff Current ($V_{EB}=-5.0V_{dc}$, $I_C=0$)	---	-1.0	μA_{dc}
$h_{FE(1)}$	DC Current Gain ($I_C=-0.5A_{dc}$, $V_{CE}=-2.0V_{dc}$)	70	240	---
$h_{FE(2)}$	DC Current Gain ($I_C=-1.5A_{dc}$, $V_{CE}=-2.0V_{dc}$)	40	---	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=-1A_{dc}$, $I_B=-50mA_{dc}$)	---	-0.5	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ($I_C=-1.0A_{dc}$, $I_B=-50mA$)	---	-1.2	Vdc
f_T	Transistor Frequency ($I_C=-500mA_{dc}$, $V_{CE}=-2.0V_{dc}$)	100(Typ)		MHz
C_{ob}	Collector output capacitance ($I_E=0$, $V_{CB}=-10V_{dc}$, $f=1MHz$)	40(Typ)		pF
t_{on}	Turn-On time ($I_{B1}=-I_{B2}=-0.05$, $V_{CC}=-30V_{dc}$, $I_C=-1A_{dc}$)	0.1(Typ)		us
t_s	Storage time ($I_{B1}=-I_{B2}=-0.05$, $V_{CC}=-30V_{dc}$, $I_C=-1A_{dc}$)	1.0(Typ)		us
t_f	Fall time ($I_{B1}=-I_{B2}=-0.05$, $V_{CC}=-30V_{dc}$, $I_C=-1A_{dc}$)	0.1(Typ)		us

CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y
Range	70-140	120-240

PNP Plastic-Encapsulate Transistor

TO-92MOD



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.228	.244	5.80	6.20	
B	.331	.346	8.40	8.80	
C	.016	.024	0.40	0.60	
D	.114	.122	2.90	3.10	Straight Lead
	.173	.220	4.40	5.60	Bent Lead
E	.059		1.50		Straight Lead
	.086	.110	2.20	2.80	Bent Lead
F	.543	.559	13.80	14.20	
G	.035	.043	0.90	1.10	
H	.157	---	4.00	---	
J	.185	.201	4.70	5.10	
K	---	.063	---	1.60	
L	.016	.020	0.40	0.50	
M	.068	.080	1.73	2.03	

* 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: 50Kpcs/Carton

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

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