



Micro Commercial Components



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

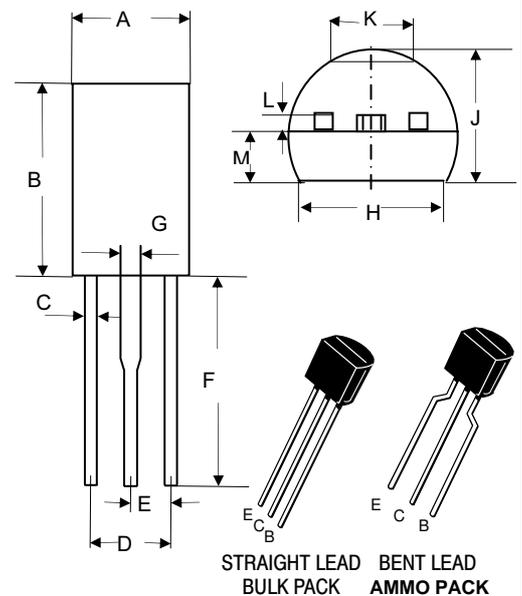
Symbol	Parameter	Min	Max	Units
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ( $I_C=-10mA$ , $I_B=0$ )	-50	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C=-100\mu A$ , $I_E=0$ )	-50	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ( $I_E=-100mA$ , $I_C=0$ )	-5.0	---	Vdc
$I_{CBO}$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