



Micro Commercial Components



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# 2SA1020L-O 2SA1020L-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

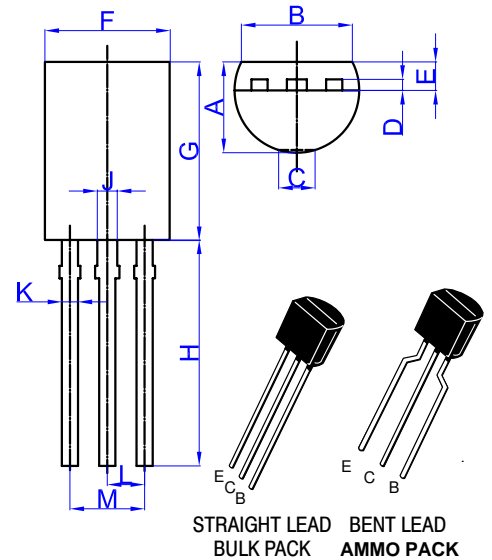
Symbol	Parameter	Min	Max	Units
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ( $I_C=-10mA$ , $I_B=0$ )	-50	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C=-100\mu A$ , $I_E=0$ )	-50	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ( $I_E=-100mA$ , $I_C=0$ )	-5.0	---	Vdc
$I_{CBO}$	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)		$\mu s$
$t_s$	Storage time ( $I_{B1}=-I_{B2}=-0.05$ , $V_{CC}=-30Vdc$ , $I_C=-1Adc$ )	1.0(Typ)		$\mu s$
$t_f$	Fall time ( $I_{B1}=-I_{B2}=-0.05$ , $V_{CC}=-30Vdc$ , $I_C=-1Adc$ )	0.1(Typ)		$\mu s$

### CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y
Range	70-140	120-240

## PNP Plastic-Encapsulate Transistor

### TO-92L



DIM	DIMENSIONS				NOTE
	MM		INCHES		
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.



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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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