



Micro Commercial Components



Micro Commercial Components  
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**2SA1162-O**  
**2SA1162-Y**  
**2SA1162-GR**

## Features

- Capable of 0.15Watts of Power Dissipation.
- Collector-current: 0.15A
- Collector-base Voltage: -50V
- 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)
- Halogen free available upon request by adding suffix "-HF"

**PNP Silicon  
 Plastic-Encapsulate  
 Transistor**

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
<b>OFF CHARACTERISTICS</b>				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ( $I_C=-1\text{mAdc}$ , $I_B=0$ )	-50	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C=-100\text{uAdc}$ , $I_E=0$ )	-50	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ( $I_E=-100\text{uAdc}$ , $I_C=0$ )	-5	---	Vdc
$I_{CBO}$	Collector Cutoff Current ( $V_{CB}=-50\text{Vdc}$ , $I_E=0$ )	---	-0.1	$\text{uAdc}$
$I_{EBO}$	Emitter Cutoff Current ( $V_{EB}=-5.0\text{Vdc}$ , $I_C=0$ )	---	-0.1	$\text{uAdc}$

## ON CHARACTERISTICS

$h_{FE}$	DC Current Gain ( $I_C=-2.0\text{mAdc}$ , $V_{CE}=-6.0\text{Vdc}$ )	70	400	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C=-100\text{mAdc}$ , $I_B=-10\text{mAdc}$ )	---	-0.3	Vdc

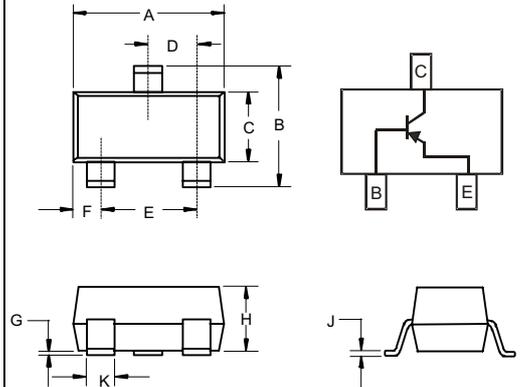
## SMALL-SIGNAL CHARACTERISTICS

$f_T$	Transistor Frequency ( $I_C=-1.0\text{mAdc}$ , $V_{CE}=-10\text{Vdc}$ )	80	---	MHz
$C_{ob}$	Collector Output Capacitance ( $V_{CB}=-10\text{Vdc}$ , $I_E=0$ , $f=1\text{MHz}$ )	---	7	pF
NF	Noise Figure ( $V_{CE}=-6\text{Vdc}$ , $I_C=0.1\text{mA}$ , $f=1\text{KHz}$ , $R_g=10\text{K}\Omega$ )	---	10	dB

## CLASSIFICATION OF $h_{FE}$

Rank	O	Y	GR
Range	70-140	120-240	200-400
Marking	SO	SY	SG

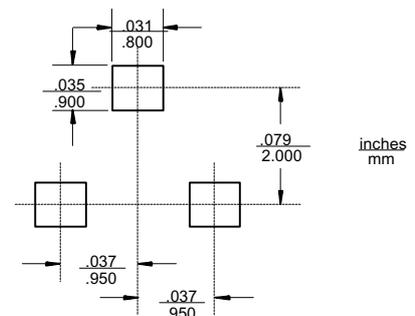
## SOT-23



## DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

## Suggested Solder Pad Layout





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### Ordering Information :

Device	Packing
Part Number-TP	Tape & Reel; 3 Kpcs/Reel

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

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