



Micro Commercial Components



Micro Commercial Components  
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**2SA1037-Q  
2SA1037-R  
2SA1037-S**

**Features**

- Small Package
- Mounting: any position
- 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"

**Maximum Ratings @ T<sub>a</sub> = 25°C (unless otherwise noted)**

Symbol	Parameter	Value	Unit
I <sub>C</sub>	Collector Current	-0.15	A
P <sub>D</sub>	Total Device Dissipation	0.2	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature Range	-55 to +150	°C

**Electrical Characteristics @ 25°C Unless Otherwise Specified**

Symbol	Parameter	Min	Max	Units
<b>OFF CHARACTERISTICS</b>				
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage (I <sub>C</sub> =-1mA <sub>dc</sub> , I <sub>B</sub> =0)	-50		V
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage (I <sub>C</sub> =-50uA <sub>dc</sub> , I <sub>E</sub> =0)	-60		V
V <sub>(BR)EBO</sub>	Collector-Base Breakdown Voltage (I <sub>E</sub> =-50uA <sub>dc</sub> , I <sub>C</sub> =0)	-6.0		V
I <sub>CBO</sub>	Collector-Base Cutoff Current (V <sub>CB</sub> =-60V <sub>dc</sub> , I <sub>E</sub> =0)		-0.1	μA <sub>dc</sub>
I <sub>EBO</sub>	Emitter-Base Cutoff Current (V <sub>EB</sub> =-6.0V <sub>dc</sub> , I <sub>C</sub> =0)		-0.1	uA <sub>dc</sub>

**ON CHARACTERISTICS**

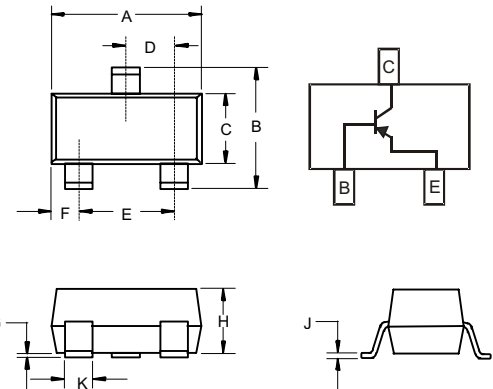
H <sub>FE</sub>	DC Current Gain (I <sub>C</sub> =-1.0mA <sub>dc</sub> , V <sub>CE</sub> =-6.0V <sub>dc</sub> )	120	560	
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage (I <sub>C</sub> =-5.0mA <sub>dc</sub> , I <sub>B</sub> =-5.0mA <sub>dc</sub> )		-0.5	V <sub>dc</sub>
F <sub>T</sub>	Transition Frequency (V <sub>CE</sub> =-12V <sub>dc</sub> , I <sub>C</sub> =-2mA <sub>dc</sub> , f=30MHZ)	120		MHZ

**CLASSIFICATION OF h<sub>FE</sub>**

Rank	Q	R	S
Range	120-270	180-390	270-560
Marking	FQ	FR	FS

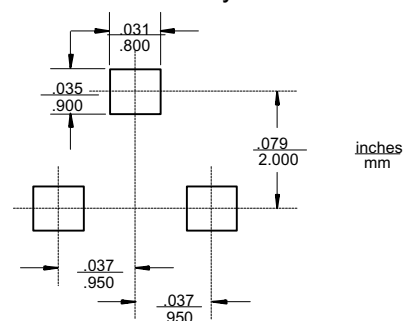
**PNP Silicon Epitaxial Transistors**

**SOT-23**



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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