



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_a = 25°C (unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|------------------|---------------------------|-------------|------|
| I _C | Collector Current | -0.15 | A |
| P _D | Total Device Dissipation | 0.2 | W |
| T _J | Junction Temperature | 150 | °C |
| T _{STG} | Storage Temperature Range | -55 to +150 | °C |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| Symbol | Parameter | Min | Max | Units |
|----------------------------|--|------|------|------------------|
| OFF CHARACTERISTICS | | | | |
| V _{(BR)CEO} | Collector-Emitter Breakdown Voltage (I _C =-1mA _{dc} , I _B =0) | -50 | | V |
| V _{(BR)CBO} | Collector-Base Breakdown Voltage (I _C =-50μA _{dc} , I _E =0) | -60 | | V |
| V _{(BR)EBO} | Collector-Base Breakdown Voltage (I _E =-50μA _{dc} , I _C =0) | -6.0 | | V |
| I _{CBO} | Collector-Base Cutoff Current (V _{CB} =-60V _{dc} , I _E =0) | | -0.1 | μA _{dc} |
| I _{EBO} | Emitter-Base Cutoff Current (V _{EB} =-6.0V _{dc} , I _C =0) | | -0.1 | μA _{dc} |

ON CHARACTERISTICS

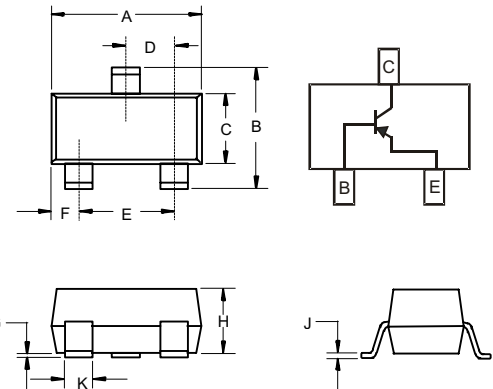
| | | | | |
|----------------------|---|-----|------|-----------------|
| H _{FE} | DC Current Gain (I _C =-1.0mA _{dc} , V _{CE} =-6.0V _{dc}) | 120 | 560 | |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage (I _C =-5.0mA _{dc} , I _B =-5.0mA _{dc}) | | -0.5 | V _{dc} |
| F _T | Transition Frequency (V _{CE} =-12V _{dc} , I _C =-2mA _{dc} , f=30MHZ) | 120 | | MHZ |

CLASSIFICATION OF h_{FE}

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

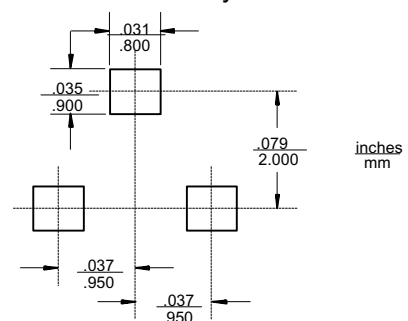
PNP Silicon Epitaxial Transistors

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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