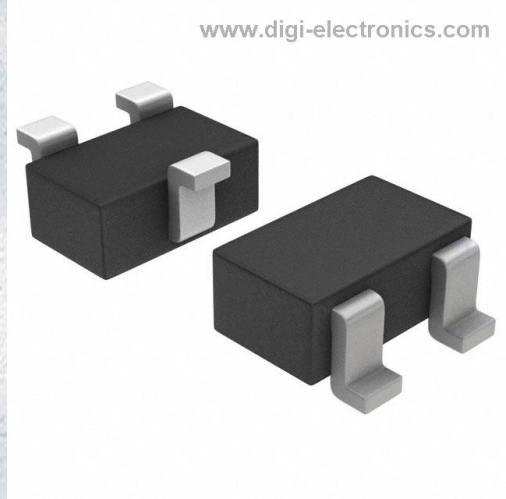
# FJX4007RTF Datasheet

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| | |
|---|---|
| DiGi Electronics Part Number | FJX4007RTF-DG |
| Manufacturer | onsemi |
| Manufacturer Product Number | FJX4007RTF |
| Description | TRANS PREBIAS PNP 50V SOT323 |
| Detailed Description | Pre-Biased Bipolar Transistor (BJT) PNP - Pre-Biased 50 V 100 mA 200 MHz 200 mW Surface Mount SOT-323 |

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

## Purchase and inquiry

| Manufacturer Product Number: | Manufacturer: |
| --- | --- |
| FJX4007RTF | onsemi |
| Series: | Product Status: |
| - | Obsolete |
| Transistor Type: | Current - Collector (Ic) (Max): |
| PNP - Pre-Biased | 100 mA |
| Voltage - Collector Emitter Breakdown (Max): | Resistor - Base (R1): |
| 50 V | 22 kOhms |
| Resistor - Emitter Base (R2): | DC Current Gain (hFE) (Min) @ Ic, Vce: |
| 47 kOhms | 68 @ 5mA, 5V |
| Vce Saturation (Max) @ Ib, Ic: | Current - Collector Cutoff (Max): |
| 300mV @ 500µA, 10mA | 100nA (ICBO) |
| Frequency - Transition: | Power - Max: |
| 200 MHz | 200 mW |
| Mounting Type: | Package / Case: |
| Surface Mount | SC-70, SOT-323 |
| Supplier Device Package: | Base Product Number: |
| SOT-323 | FJX400 |

## Environmental & Export classification

| Moisture Sensitivity Level (MSL): | REACH Status: |
| --- | --- |
| 1 (Unlimited) | REACH Unaffected |
| ECCN: | HTSUS: |
| EAR99 | 8541.21.0075 |

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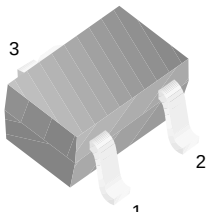
# FJX4007R

## Switching Application (Bias Resistor Built In)

- Switching circuit, Inverter, Interface circuit, Driver Circuit
- Built in bias Resistor ($R_1$=22KΩ, $R_2$=47KΩ)
- Complement to FJX3007R

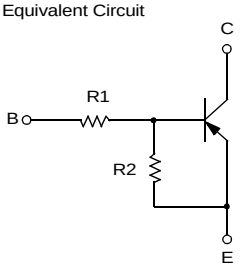



SOT-323

1. Base 2. Emitter 3. Collector

Marking


Equivalent Circuit




## PNP Epitaxial Silicon Transistor

### Absolute Maximum Ratings $T_a$=25°C unless otherwise noted

| Symbol | Parameter | Value | Units |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | -50 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | -50 | V |
| $V_{EBO}$ | Emitter-Base Voltage | -10 | V |
| $I_C$ | Collector Current | -100 | mA |
| $P_C$ | Collector Power Dissipation | 200 | mW |
| $T_J$ | Junction Temperature | 150 | °C |
| $T_{STG}$ | Storage Temperature | -55 ~ 150 | °C |

### Electrical Characteristics $T_a$=25°C unless otherwise noted

| Symbol | Parameter | Test Condition | Min. | Typ. | Max. | Units |
|---|---|---|---|---|---|---|
| $BV_{CBO}$ | Collector-Base Breakdown Voltage | $I_C$= -10μA, $I_E$=0 | -50 | | | V |
| $BV_{CEO}$ | Collector-Emitter Breakdown Voltage | $I_C$= -100μA, $I_B$=0 | -50 | | | V |
| $I_{CBO}$ | Collector Cut-off Current | $V_{CB}$= -40V, $I_E$=0 | | | -0.1 | μA |
| $h_{FE}$ | DC Current Gain | $V_{CE}$= -5V, $I_C$= -5mA | 68 | | | |
| $V_{CE}$(sat) | Collector-Emitter Saturation Voltage | $I_C$= -10mA, $I_B$= -0.5mA | | | -0.3 | V |
| $C_{ob}$ | Output Capacitance | $V_{CB}$= -10V, $I_E$=0 f=1MHz | | 5.5 | | pF |
| $f_T$ | Current Gain-Bandwidth Product | $V_{CE}$= -10V, $I_C$= -5mA | | 200 | | MHz |
| $V_I$(off) | Input Off Voltage | $V_{CE}$= -5V, $I_C$= -100μA | -0.4 | | | V |
| $V_I$(on) | Input On Voltage | $V_{CE}$= -0.3V, $I_C$= -2mA | | | -2.5 | V |
| $R_1$ | Input Resistor | | 15 | 22 | 29 | KΩ |
| $R_1/R_2$ | Resistor Ratio | | 0.42 | 0.47 | 0.52 | |

# Typical Characteristics

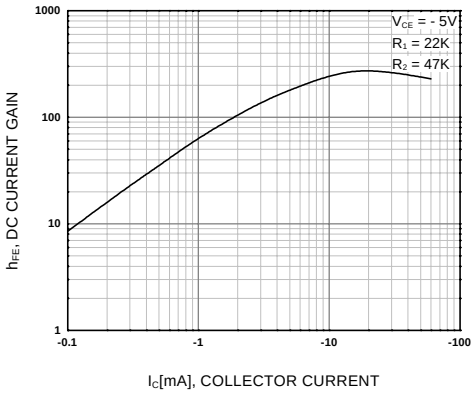



**Figure 1. DC current Gain**

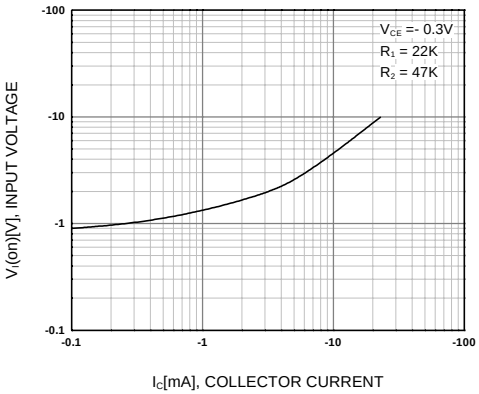



**Figure 2. Input On Voltage**

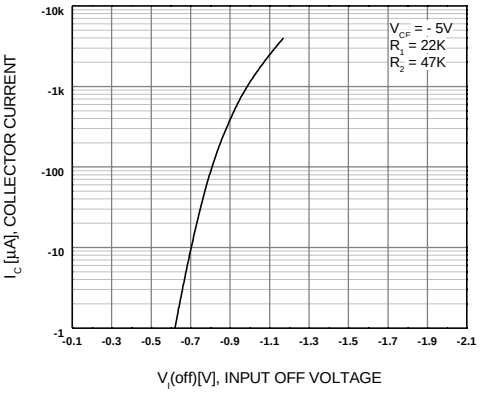



**Figure 3. Input Off Voltage**

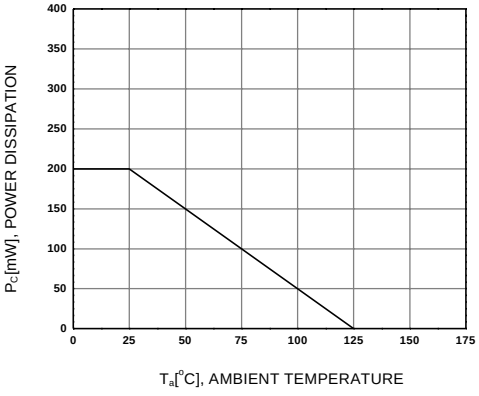
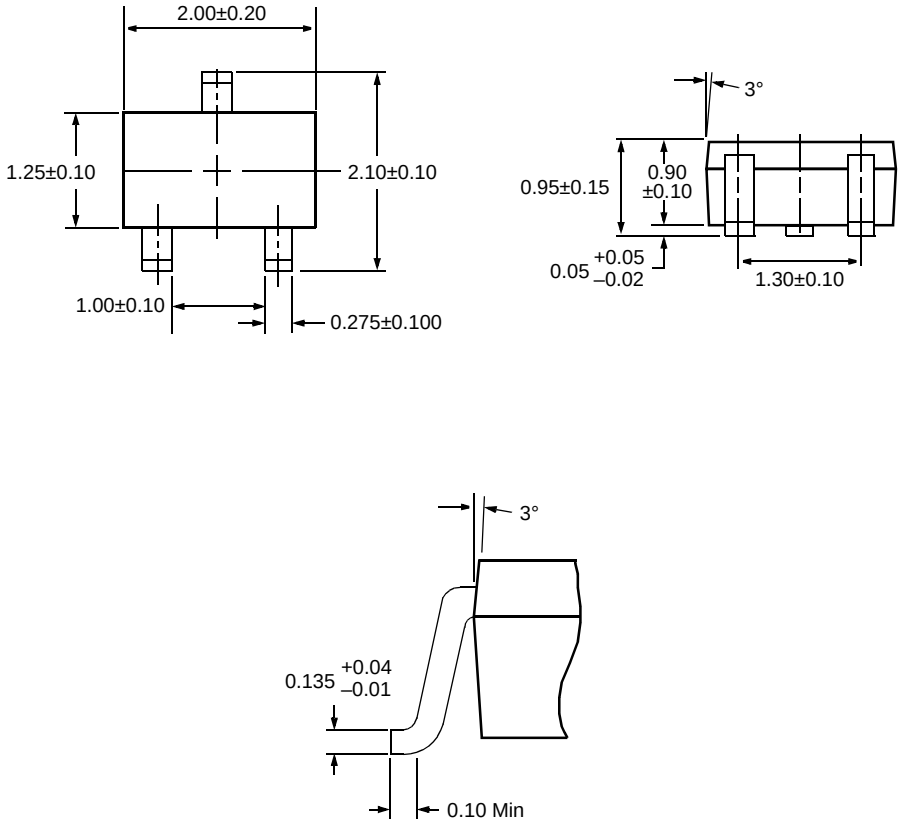



**Figure 4. Power Derating**

## Package Dimensions

SOT-323




Dimensions in Millimeters

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| CoolFET™ | FASTr™ | MicroFET™ | PowerTrench® | SuperSOT™-6 |
| *CROSSVOLT*™ | FRFET™ | MicroPak™ | QFET™ | SuperSOT™-8 |
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| $E^2$CMOS™ | HiSeC™ | MSXPro™ | Quiet Series™ | TruTranslation™ |
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| No Identification Needed | Full Production | This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design. |
| Obsolete | Not In Production | This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only. |

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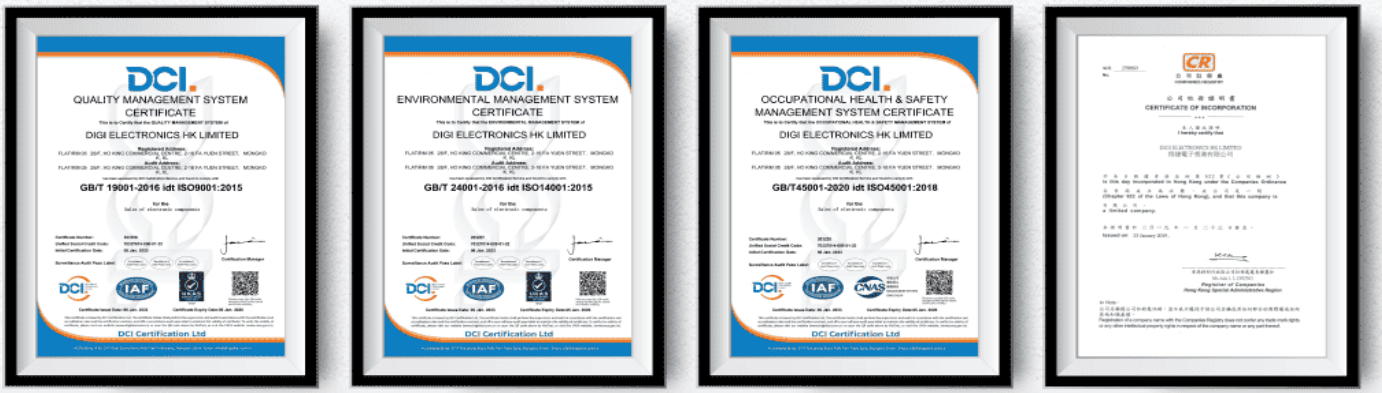



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