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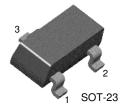
Please note: As part of the Fairchild Semiconductor integration, some of the Fairchild orderable part numbers will need to change in order to meet ON Semiconductor's system requirements. Since the ON Semiconductor product management systems do not have the ability to manage part nomenclature that utilizes an underscore (_), the underscore (_) in the Fairchild part numbers will be changed to a dash (-). This document may contain device numbers with an underscore (_). Please check the ON Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.onsemi.com. Please email any questions regarding the system integration to Fairchild guestions@onsemi.com.

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KSA1182

Low Frequency Power Amplifier • Complement to KSC2859



1. Base 2. Emitter 3. Collector

PNP Epitaxial Silicon Transistor

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

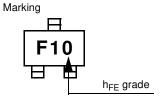
| Symbol | Parameter | Ratings | Units |
|------------------|-----------------------------|-----------|-------|
| V _{CBO} | Collector-Base Voltage | -35 | V |
| V_{CEO} | Collector-Emitter Voltage | -30 | V |
| V _{EBO} | Emitter-Base Voltage | -5 | V |
| I _C | Collector Current | -500 | mA |
| P _C | Collector Power Dissipation | 150 | mW |
| T _J | Junction Temperature | 150 | °C |
| T _{STG} | Storage Temperature | -55 ~ 150 | °C |

$\textbf{Electrical Characteristics} \ \, \textbf{T}_{a} \!\!=\!\! 25^{\circ} \textbf{C} \ \, \text{unless otherwise noted}$

| Symbol | Parameter | Test Condition | Min. | Тур. | Max. | Units |
|-----------------------|--------------------------------------|--|------|------|-------|-------|
| I _{CBO} | Collector Cut-off Current | $V_{CB} = -35V, I_{E} = 0$ | | | -0.1 | μΑ |
| I _{EBO} | Emitter Cut-off Current | V_{EB} = -5V, I_{C} =0 | | | -0.1 | μΑ |
| h _{FE1} | DC Current Gain | $V_{CE} = -1V, I_{C} = -100 \text{mA}$ | 70 | | 240 | |
| h _{FE2} | | V_{CE} = -6V, I_{C} = -400mA | 25 | | | |
| V _{CE} (sat) | Collector-Emitter Saturation Voltage | I_{C} = -100mA, I_{B} = -10mA | | -0.1 | -0.25 | V |
| V _{BE} (on) | Base-Emitter On Voltage | V_{CE} = -1V , I_{C} = -100mA | | -0.8 | -1.0 | V |
| f _T | Current Gain Bandwidth Product | V_{CE} = -6V, I_{C} = -20mA | | 200 | | MHz |
| C _{ob} | Output Capacitance | V_{CB} = -6V, I_E = 0, f=1MHz | | 13 | | pF |

$h_{\mbox{\scriptsize FE}}$ Classification

| Classification | 0 | Υ |
|------------------|----------|-----------|
| h _{FE1} | 70 ~ 140 | 120 ~ 240 |



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Typical Characteristics

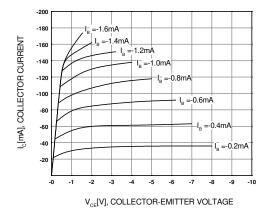


Figure 1. Static Characteristic

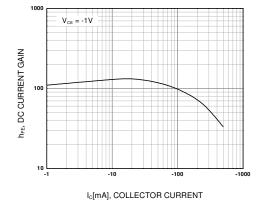


Figure 2. DC current Gain

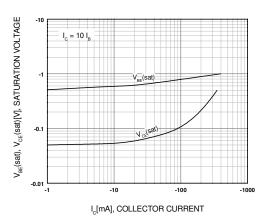


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

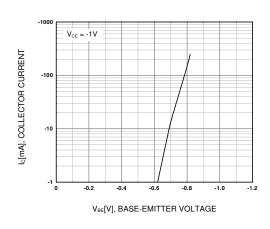


Figure 4. Base-Emitter On Voltage

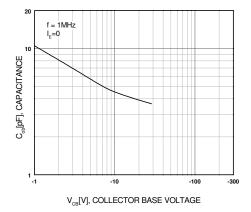
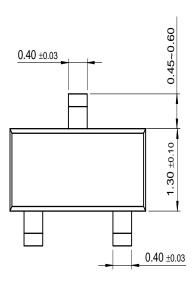


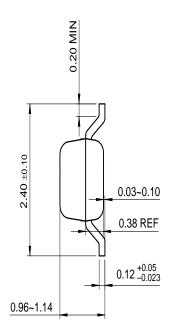
Figure 5. Collector Output Capacitance

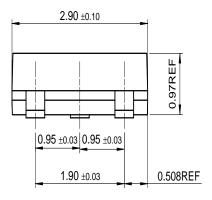
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Package Dimensions

SOT-23







Dimensions in Millimeters

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|--------------------------|---------------------------|---|
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