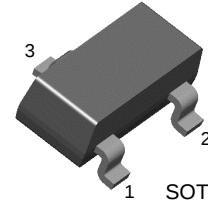


# KSC3265

KSC3265

## Low Frequency Amplifier

- Complement to KSA1298



1. Base 2. Emitter 3. Collector

## NPN Epitaxial Silicon Transistor

### Absolute Maximum Ratings $T_a=25^\circ\text{C}$ unless otherwise noted

| Symbol    | Parameter                   | Value     | Units            |
|-----------|-----------------------------|-----------|------------------|
| $V_{CBO}$ | Collector-Base Voltage      | 30        | V                |
| $V_{CEO}$ | Collector-Emitter Voltage   | 25        | V                |
| $V_{EBO}$ | Emitter-Base Voltage        | 5         | V                |
| $I_C$     | Collector Current           | 800       | mA               |
| $I_B$     | Base Current                | 160       | mA               |
| $P_C$     | Collector Power Dissipation | 200       | mW               |
| $T_J$     | Junction Temperature        | 150       | $^\circ\text{C}$ |
| $T_{STG}$ | Storage Temperature         | -55 ~ 150 | $^\circ\text{C}$ |

\* Refer to KSD261 for graphs

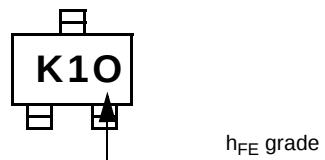
### Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

| Symbol                 | Parameter                            | Test Condition                                                                     | Min.      | Typ. | Max. | Units |
|------------------------|--------------------------------------|------------------------------------------------------------------------------------|-----------|------|------|-------|
| $BV_{CEO}$             | Collector-Emitter Breakdown Voltage  | $I_C=10\text{mA}$ , $I_B=0$                                                        | 25        |      |      | V     |
| $BV_{EBO}$             | Emitter-Base Breakdown Voltage       | $I_E=1\text{mA}$ , $I_C=0$                                                         | 5         |      |      | V     |
| $I_{CBO}$              | Collector Cut-off Current            | $V_{CB}=30\text{V}$ , $I_E=0$                                                      |           |      | 100  | nA    |
| $I_{EBO}$              | Emitter Cut-off Current              | $V_{EB}=5\text{V}$ , $I_C=0$                                                       |           |      | 100  | nA    |
| $h_{FE1}$<br>$h_{FE2}$ | DC Current Gain                      | $V_{CE}=1\text{V}$ , $I_C=100\text{mA}$<br>$V_{CE}=6\text{V}$ , $I_C=800\text{mA}$ | 100<br>40 |      | 320  |       |
| $V_{CE}(\text{sat})$   | Collector-Emitter Saturation Voltage | $I_C=500\text{mA}$ , $I_B=20\text{mA}$                                             |           |      | 0.4  | V     |
| $V_{BE}(\text{on})$    | Base-Emitter On Voltage              | $V_{CE}=1\text{V}$ , $I_C=10\text{mA}$                                             | 0.5       |      | 0.8  | V     |
| $f_T$                  | Current Gain Bandwidth Product       | $V_{CE}=5\text{V}$ , $I_C=10\text{mA}$                                             |           | 120  |      | MHz   |
| $C_{ob}$               | Output Capacitance                   | $V_{CB}=10\text{V}$ , $I_E=0$ , $f=1\text{MHz}$                                    |           | 13   |      | pF    |

### $h_{FE}$ Classification

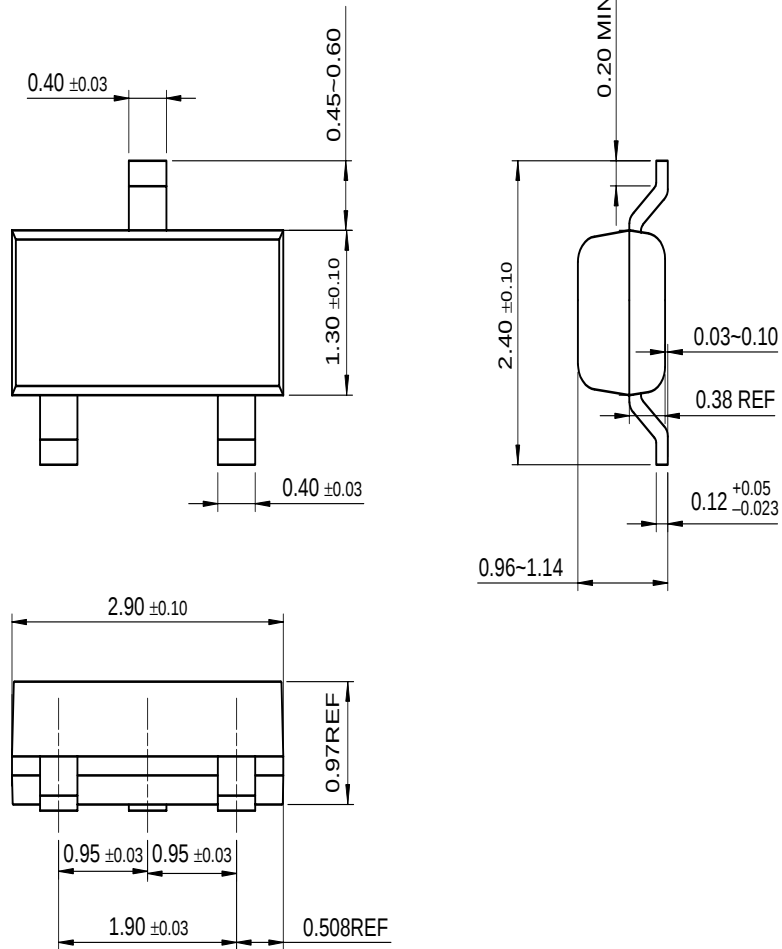
| Classification | O         | Y         |
|----------------|-----------|-----------|
| $h_{FE}$       | 100 ~ 200 | 160 ~ 320 |

Marking



# Package Dimensions

## SOT-23



Dimensions in Millimeters

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