

KSC1623**NPN EPITAXIAL SILICON TRANSISTOR**

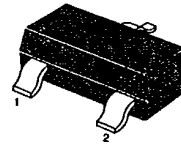
LOW FREQUENCY AMPLIFIER
HIGH FREQUENCY OSC

• Complement to KSA812

ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

| Characteristic | Symbol | Rating | Unit |
|---------------------------|-----------|---------|------------------|
| Collector-Base Voltage | V_{CB0} | 60 | V |
| Collector-Emitter Voltage | V_{CE0} | 50 | V |
| Emitter-Base Voltage | V_{EB0} | 5 | V |
| Collector Current | I_C | 100 | mA |
| Collector Dissipation | P_C | 200 | mW |
| Junction Temperature | T_J | 150 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | -55~150 | $^\circ\text{C}$ |

SOT-23



1. Base 2. Emitter 3. Collector

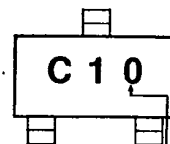
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

| Characteristic | Symbol | Test Condition | Min | Typ | Max | Unit |
|--------------------------------------|---------------|--|------|------|------|---------------|
| Collector Cutoff Current | I_{CB0} | $V_{CB}=60\text{V}, I_E=0$ | | | 0.1 | μA |
| Emitter Cutoff Current | I_{EB0} | $V_{EB}=5\text{V}, I_C=0$ | | | 0.1 | μA |
| DC Current Gain | h_{FE} | $V_{CE}=6\text{V}, I_C=1\text{mA}$ | 90 | 200 | 600 | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=100\text{mA}, I_B=10\text{mA}$ | | 0.15 | 0.3 | V |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C=100\text{mA}, I_B=10\text{mA}$ | | 0.86 | 1.0 | V |
| Base-Emitter On Voltage | $V_{BE(on)}$ | $I_C=1\text{mA}, V_{CE}=6\text{V}$ | 0.55 | 0.62 | 0.65 | V |
| Current Gain-Bandwidth Product | f_T | $I_E=-10\text{mA}, V_{CE}=6\text{V}$ | | 250 | | MHz |
| Output Capacitance | C_{ob} | $V_{CB}=6\text{V}, I_E=0$ $f=1\text{MHz}$ | | 3 | | pF |

 h_{FE} CLASSIFICATION

| Classification | O | Y | G | L |
|----------------|--------|---------|---------|---------|
| h_{FE} | 90-180 | 135-270 | 200-400 | 300-600 |

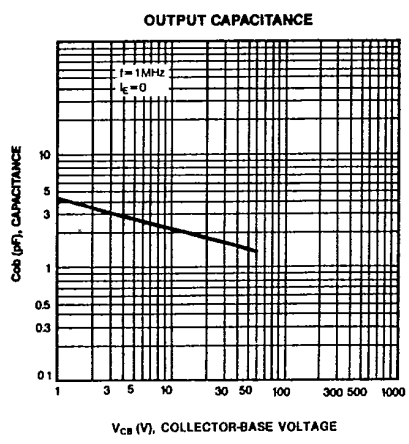
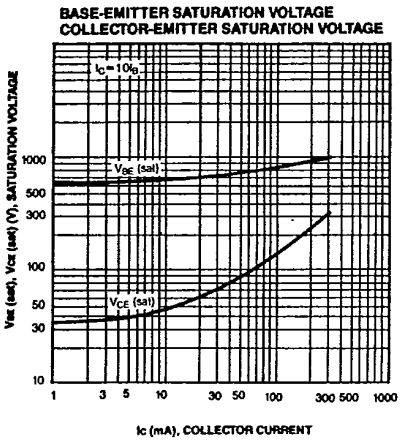
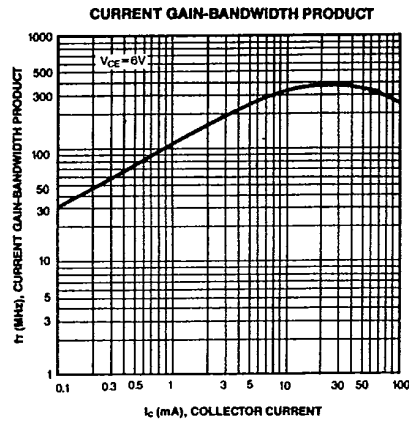
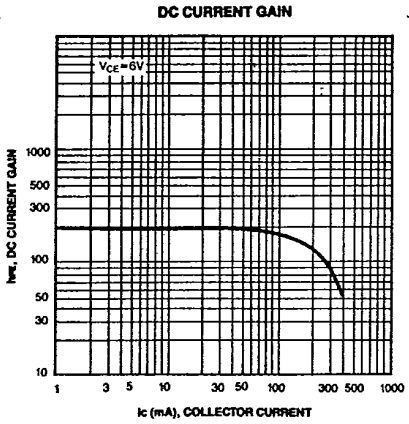
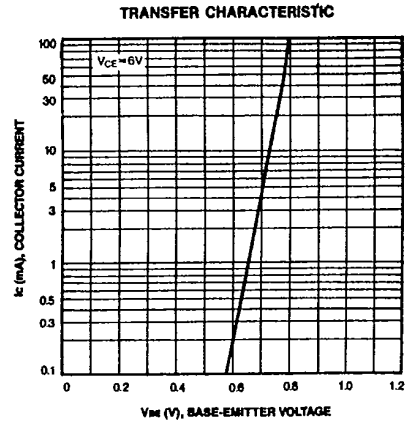
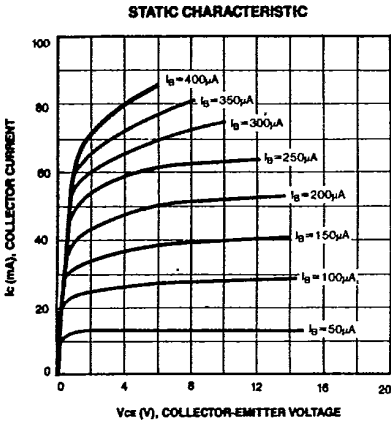
Marking

 h_{FE} grade

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T-31-15



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