

KSD261

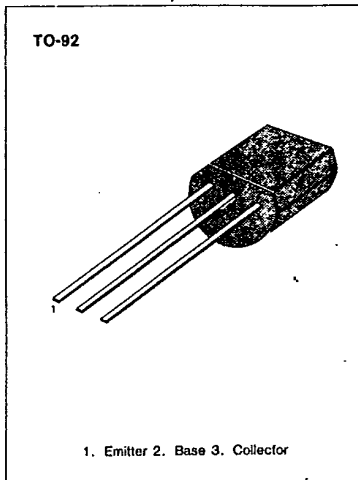
NPN EPITAXIAL SILICON TRANSISTOR

LOW FREQUENCY POWER AMPLIFIER

- Complement to KSA643
- Collector Dissipation $P_C=500\text{mW}$

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

| Characteristic | Symbol | Rating | Unit |
|---------------------------|-----------|-----------|------------------|
| Collector-Base Voltage | V_{CB0} | 40 | V |
| Collector-Emitter Voltage | V_{CE0} | 20 | V |
| Emitter-Base Voltage | V_{EB0} | 5 | V |
| Collector Current | I_C | 500 | mA |
| Collector Dissipation | P_C | 500 | mW |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | -55 - 150 | $^\circ\text{C}$ |



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

| Characteristic | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--------------------------------------|---------------|-------------------------------------|-----|------|-----|---------------|
| Collector-Base Breakdown Voltage | BV_{CB0} | $I_C=100\mu\text{A}, I_E=0$ | 40 | | | V |
| Collector-Emitter Breakdown Voltage | BV_{CE0} | $I_C=10\text{mA}, I_B=0$ | 20 | | | V |
| Emitter-Base Breakdown Voltage | BV_{EB0} | $I_E=-100\mu\text{A}, I_C=0$ | 5 | | | V |
| Collector Cut-off Current | I_{CBO} | $V_{CB}=25\text{V}, I_E=0$ | | | 0.1 | μA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB}=3\text{V}, I_C=0$ | | | 0.1 | μA |
| DC Current Gain | h_{FE} | $V_{CE}=1\text{V}, I_C=0.1\text{A}$ | 40 | | 400 | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=0.5\text{A}, I_B=0.05\text{A}$ | | 0.18 | 0.4 | V |

h_{FE} CLASSIFICATION

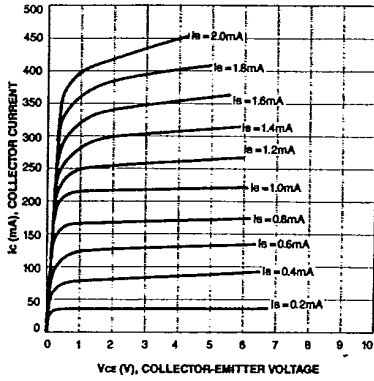
| Classification | R | O | Y | G |
|----------------|-------|--------|---------|---------|
| h_{FE} | 40-80 | 70-140 | 120-240 | 200-400 |

KSD261

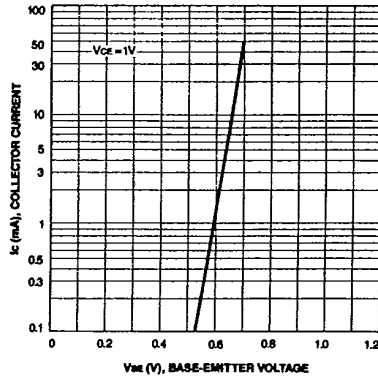
NPN EPITAXIAL SILICON TRANSISTOR

T-29-21

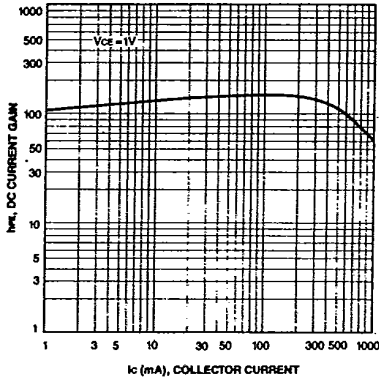
STATIC CHARACTERISTIC



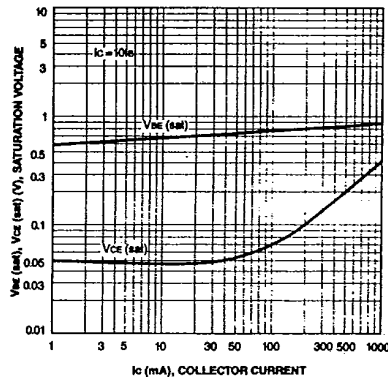
BASE-EMITTER ON VOLTAGE



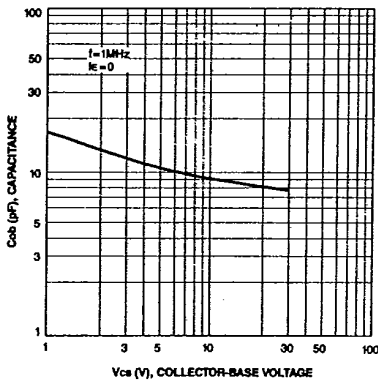
DC CURRENT GAIN



**BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE**



COLLECTOR OUTPUT CAPACITANCE



3

