

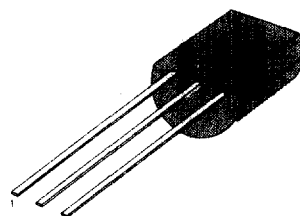
**LOW FREQUENCY AMPLIFIER  
MEDIUM SPEED SWITCHING**

- Complement to KSA708
- High Collector-Base Voltage  $V_{CB0}=80V$
- Collector Current  $I_C=700mA$
- Collector Dissipation  $P_C=800mW$

**ABSOLUTE MAXIMUM RATINGS ( $T_A=25^\circ C$ )**

| Characteristic            | Symbol    | Rating    | Unit       |
|---------------------------|-----------|-----------|------------|
| Collector-Base Voltage    | $V_{CB0}$ | 80        | V          |
| Collector-Emitter Voltage | $V_{CEO}$ | 60        | V          |
| Emitter-Base Voltage      | $V_{EB0}$ | 8         | V          |
| Collector Current         | $I_C$     | 700       | mA         |
| Collector Dissipation     | $P_C$     | 800       | mW         |
| Junction Temperature      | $T_J$     | 150       | $^\circ C$ |
| Storage Temperature       | $T_{STG}$ | -55 ~ 150 | $^\circ C$ |

TO-92



1. Emitter 2. Base 3. Collector

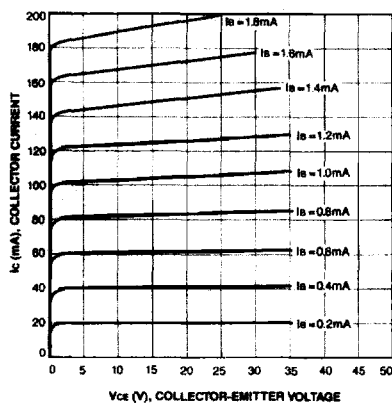
**ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ C$ )**

| Characteristic                       | Symbol        | Test Conditions                 | Min | Typ  | Max | Unit    |
|--------------------------------------|---------------|---------------------------------|-----|------|-----|---------|
| Collector-Base Breakdown Voltage     | $BV_{CB0}$    | $I_C=100\mu A, I_E=0$           | 80  |      |     | V       |
| Collector-Emitter Breakdown Voltage  | $BV_{CEO}$    | $I_C=10mA, I_B=0$               | 60  |      |     | V       |
| Emitter-Base Breakdown Voltage       | $BV_{EB0}$    | $I_E=10\mu A, I_C=0$            | 8   |      |     | V       |
| Collector Cut-off Current            | $I_{CB0}$     | $V_{CB}=60V, I_E=0$             |     |      | 0.1 | $\mu A$ |
| Emitter Cut-off Current              | $I_{EB0}$     | $V_{EB}=5V, I_C=0$              |     |      | 0.1 | $\mu A$ |
| DC Current Gain                      | $h_{FE}$      | $V_{CE}=2V, I_C=50mA$           | 40  |      | 400 |         |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=500mA, I_B=50mA$           |     | 0.2  | 0.4 | V       |
| Base-Emitter Saturation Voltage      | $V_{BE(sat)}$ | $I_C=500mA, I_B=50mA$           |     | 0.86 | 1.1 | V       |
| Current Gain-Bandwidth Product       | $f_T$         | $V_{CE}=10V, I_C=50mA$          | 30  | 50   |     | MHz     |
| Output Capacitance                   | $C_{OB}$      | $V_{CB}=10V, I_E=0$<br>$f=1MHz$ |     | 8    |     | pF      |

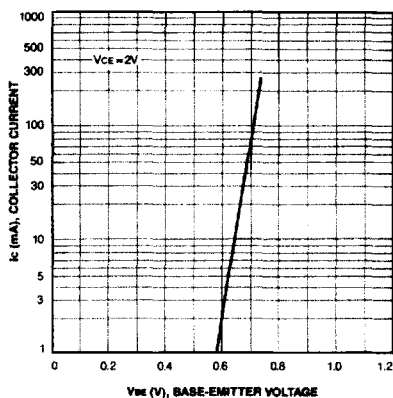
 **$h_{FE}$  CLASSIFICATION**

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

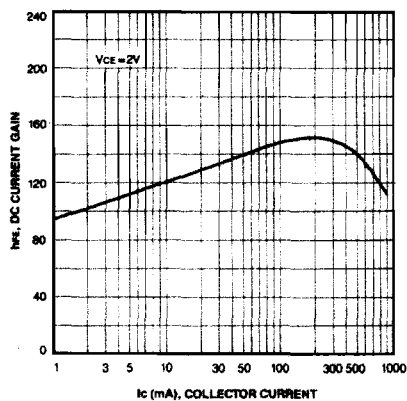
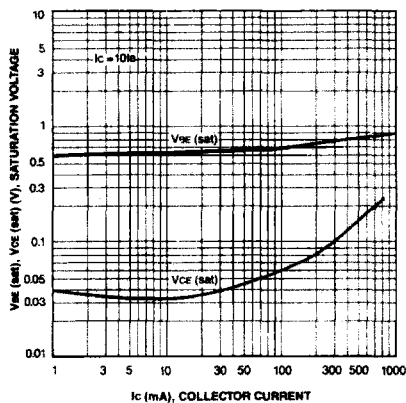
STATIC CHARACTERISTIC



BASE-EMITTER ON VOLTAGE



DC CURRENT GAIN

BASE-EMITTER SATURATION VOLTAGE  
COLLECTOR-EMITTER SATURATION VOLTAGE

COLLECTOR OUTPUT CAPACITANCE

