

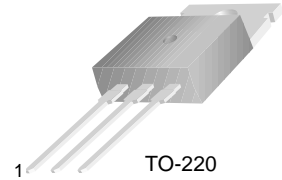


KSA940

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Vertical Deflection Output Power Amplifier

- Complement to KSC2073



1.Base 2.Collector 3.Emitter

PNP Epitaxial Silicon Transistor

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

| Symbol | Parameter | Ratings | Units |
|-----------|--|------------|------------------|
| V_{CBO} | Collector-Base Voltage | - 150 | V |
| V_{CEO} | Collector-Emitter Voltage | - 150 | V |
| V_{EBO} | Emitter-Base Voltage | - 5 | V |
| I_C | Collector Current | - 1.5 | A |
| I_B | Base Current | - 0.5 | A |
| P_C | Collector Dissipation ($T_a=25^\circ\text{C}$) | 1.5 | W |
| P_C | Collector Dissipation ($T_C=25^\circ\text{C}$) | 25 | W |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{STG} | Storage Temperature | - 55 ~ 150 | $^\circ\text{C}$ |

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

| Symbol | Parameter | Test Condition | Min. | Typ. | Max. | Units |
|---------------|--------------------------------------|--|--------|--------|--------|---------------|
| I_{CBO} | Collector Cut-off Current | $V_{CB} = -120\text{V}, I_E = 0$ | | | - 10 | μA |
| I_{EBO} | Emitter Cut-off Current | $V_{EB} = -5\text{V}, I_C = 0$ | | | - 10 | μA |
| h_{FE} | DC Current Gain | $V_{CE} = -10\text{V}, I_C = -500\text{mA}$ | 40 | 75 | 140 | |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C = -500\text{mA}, I_B = -50\text{mA}$ | | | - 1.5 | V |
| $V_{BE(on)}$ | Base-Emitter ON Voltage | $V_{CE} = -10\text{V}, I_C = -500\text{mA}$ | - 0.65 | - 0.75 | - 0.85 | V |
| f_T | Current Gain Bandwidth Product | $V_{CE} = -10\text{V}, I_C = -500\text{mA}$ | | 4 | | MHz |
| C_{ob} | Output Capacitance | $V_{CB} = -10\text{V}, I_E = 0$ $f = 1\text{MHz}$ | | 55 | | pF |

Typical Characteristics

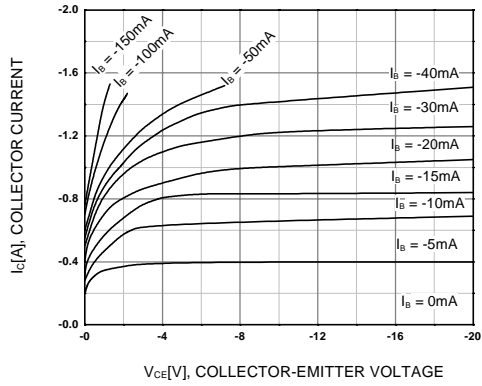


Figure 1. Static Characteristic

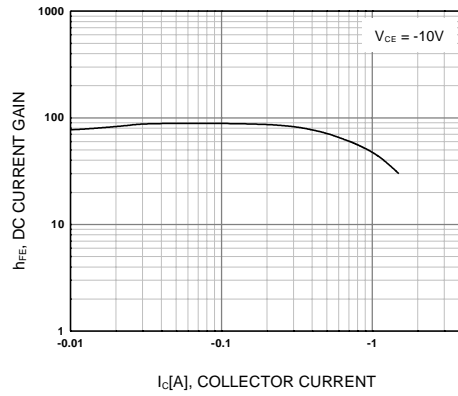


Figure 2. DC current Gain

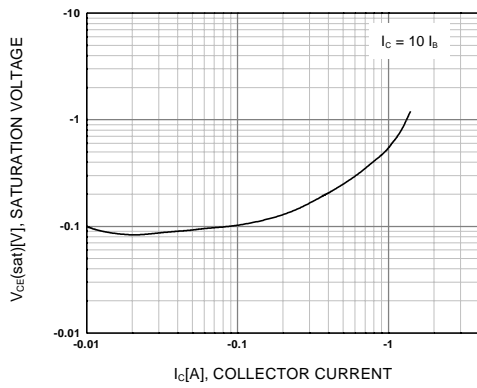


Figure 3. Collector-Emitter Saturation Voltage

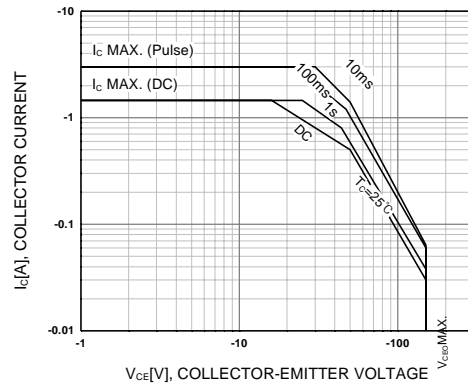


Figure 4. Safe Operating Area

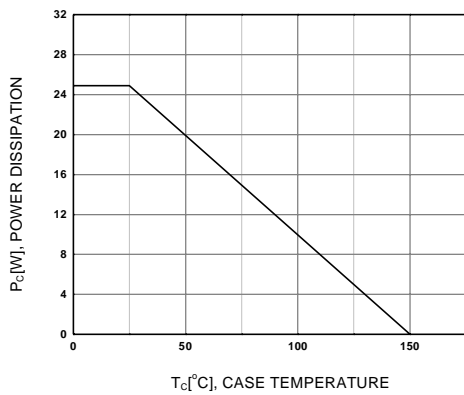
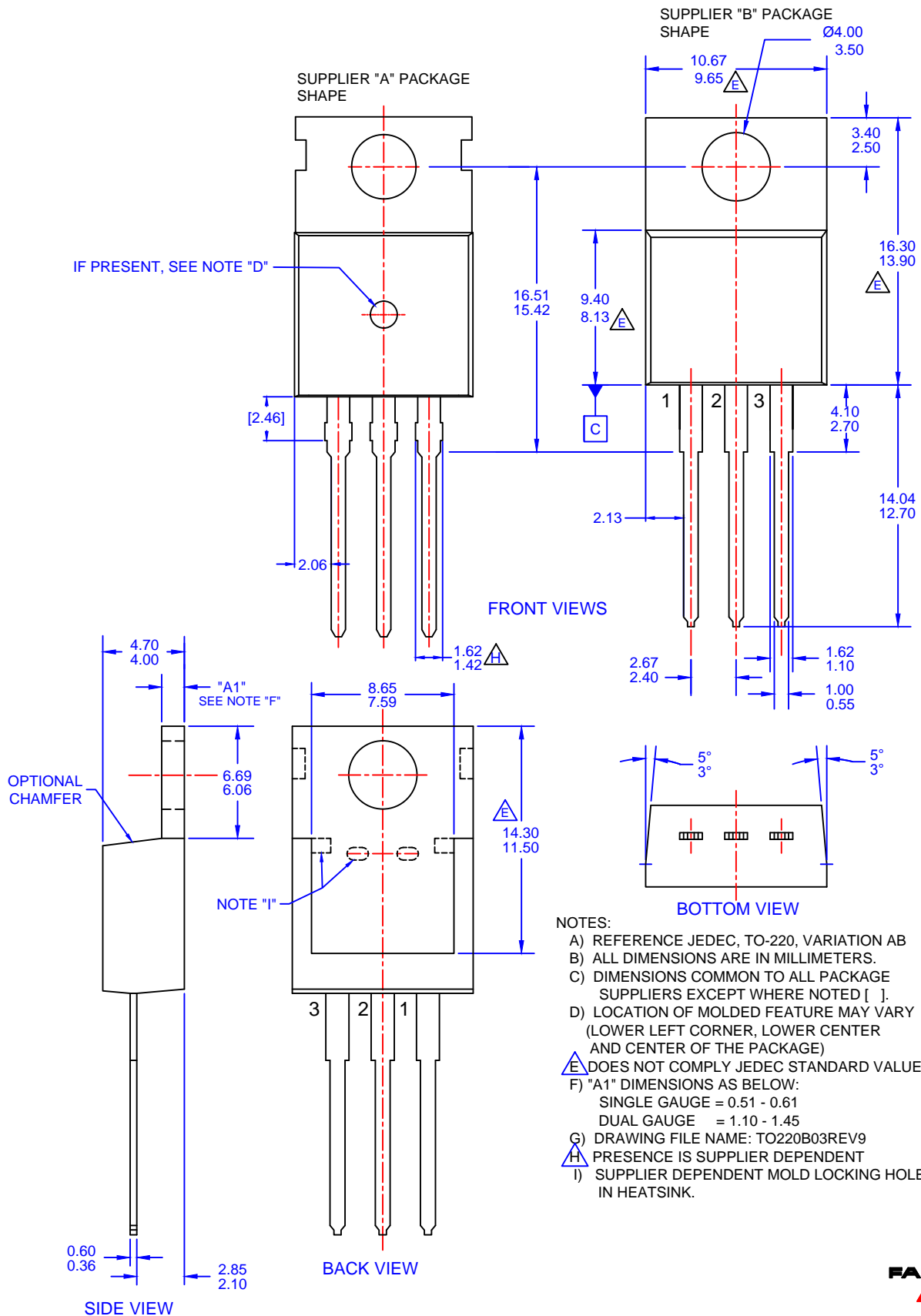


Figure 5. Power Derating



- NOTES:
- A) REFERENCE JEDEC, TO-220, VARIATION AB
 - B) ALL DIMENSIONS ARE IN MILLIMETERS.
 - C) DIMENSIONS COMMON TO ALL PACKAGE SUPPLIERS EXCEPT WHERE NOTED [].
 - D) LOCATION OF MOLDED FEATURE MAY VARY (LOWER LEFT CORNER, LOWER CENTER AND CENTER OF THE PACKAGE)
 - E) DOES NOT COMPLY JEDEC STANDARD VALUE.
 - F) "A1" DIMENSIONS AS BELOW:
 SINGLE GAUGE = 0.51 - 0.61
 DUAL GAUGE = 1.10 - 1.45
 - G) DRAWING FILE NAME: TO220B03REV9
 - H) PRESENCE IS SUPPLIER DEPENDENT
 - I) SUPPLIER DEPENDENT MOLD LOCKING HOLES IN HEATSINK.



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