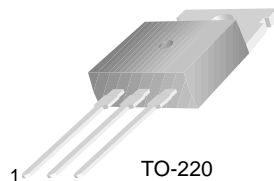


# KSC2073

## TV Vertical Deflection Output

- Complement to KSA940
- Collector-Base Voltage :  $V_{CBO} = 150V$



1.Base 2.Collector 3.Emitter

## NPN Epitaxial Silicon Transistor

### Absolute Maximum Ratings $T_C=25^\circ C$ unless otherwise noted

| Symbol    | Parameter                                  | Value      | 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          |
| $P_C$     | Collector Dissipation ( $T_C=25^\circ C$ ) | 25         | W          |
| $T_J$     | Junction Temperature                       | 150        | $^\circ C$ |
| $T_{STG}$ | Storage Temperature                        | - 55 ~ 150 | $^\circ C$ |

### Electrical Characteristics $T_C=25^\circ C$ unless otherwise noted

| Symbol        | Parameter                            | Test Condition                        | Min. | Typ. | Max. | Units   |
|---------------|--------------------------------------|---------------------------------------|------|------|------|---------|
| $BV_{CBO}$    | Collector-Base Breakdown Voltage     | $I_C = 500\mu A, I_E = 0$             | 150  |      |      | V       |
| $BV_{CEO}$    | Collector-Emitter Breakdown Voltage  | $I_C = 10mA, I_B = 0$                 | 150  |      |      | V       |
| $BV_{EBO}$    | Emitter-Base Breakdown Voltage       | $I_E = - 500\mu A, I_C = 0$           | 5    |      |      | V       |
| $I_{CBO}$     | Collector Cut-off Current            | $V_{CB} = 120V, I_E = 0$              |      |      | 10   | $\mu A$ |
| $h_{FE}$      | DC Current Gain                      | $V_{CE} = 10V, I_C = 0.5A$            | 40   | 75   | 140  |         |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C = 500mA, I_B = 50mA$             |      |      | 1    | V       |
| $f_T$         | Current Gain Bandwidth Product       | $V_{CE} = 10V, I_C = 0.5A$            |      | 4    |      | MHz     |
| $C_{ob}$      | Output Capacitance                   | $V_{CB} = 10V, I_E = 0$<br>$f = 1MHz$ |      | 50   |      | pF      |

# Typical Characteristics

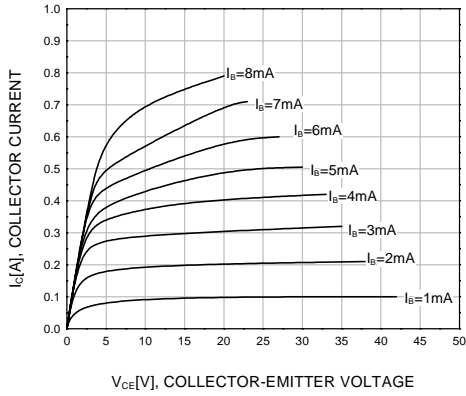


Figure 1. Static Characteristic

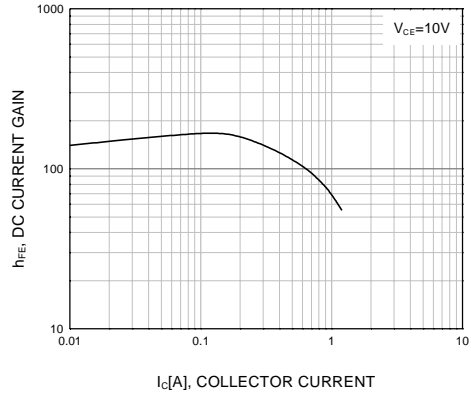


Figure 2. DC current Gain

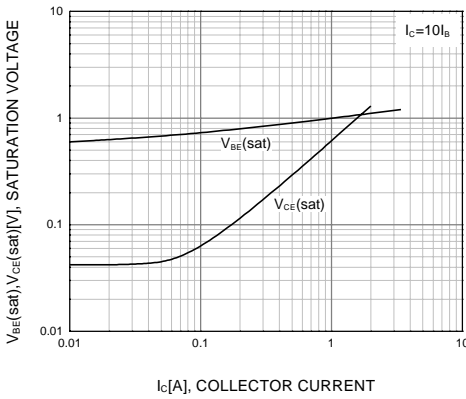


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

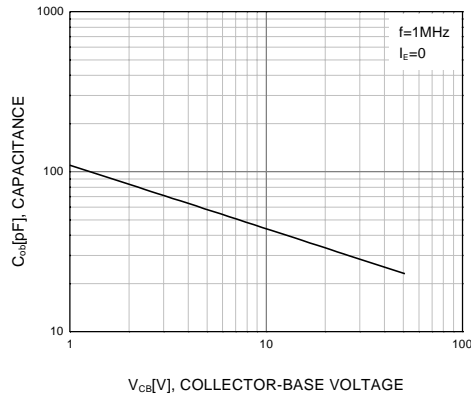


Figure 4. Collector-Emitter On Voltage

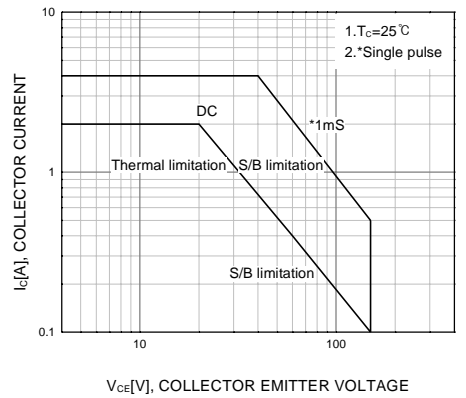


Figure 5. Safe Operating Area

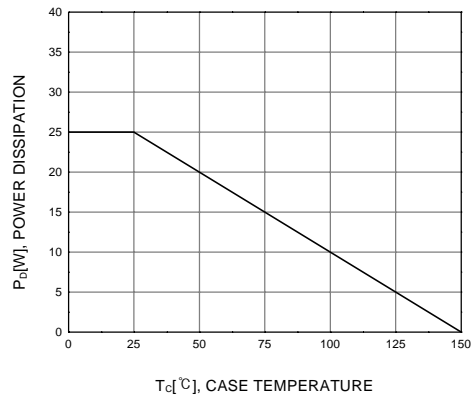
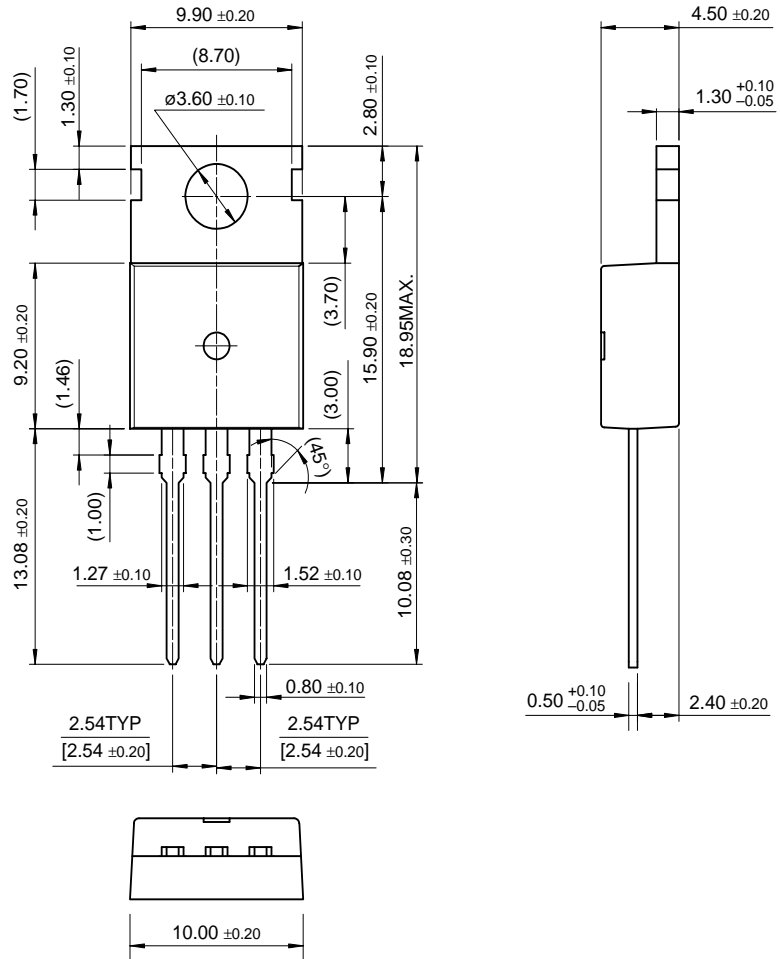


Figure 6. Power Derating

# Package Dimensions

## TO-220



Dimensions in Millimeters

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| CROSSVOLT™           | POP™          | UHC™        |
| E <sup>2</sup> CMOS™ | PowerTrench®  | VCX™        |
| FACT™                | QFET™         |             |
| FACT Quiet Series™   | QS™           |             |
| FAST®                | Quiet Series™ |             |
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