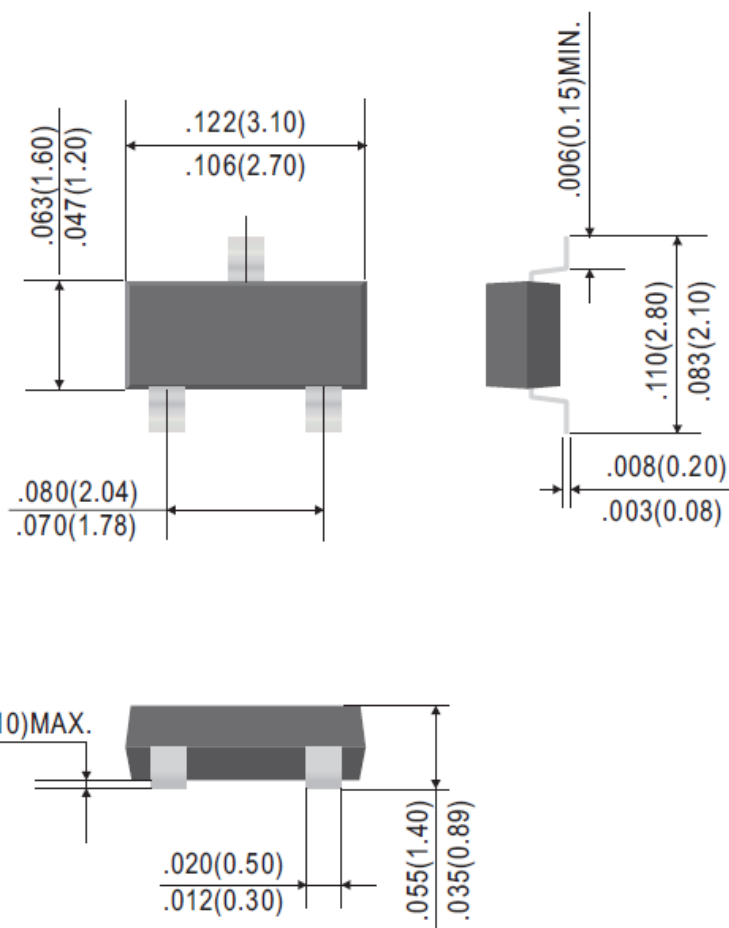
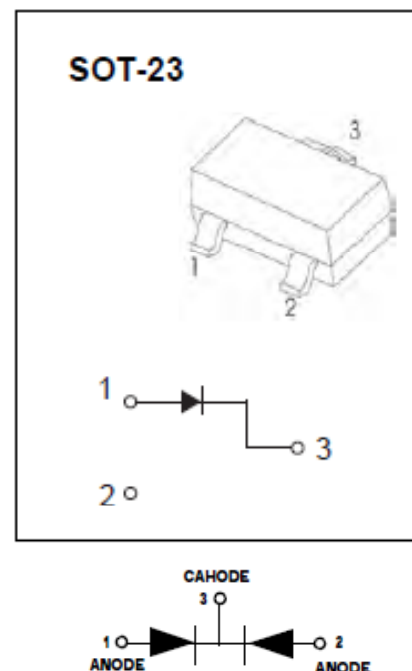




Dimensions in inches and (millimeters)



## FEATURES

- Fast Switching Speed
- High Conductance
- High Reverse Breakdown Voltage Rating
- We declare that the material of product compliance with RoHS requirements.
- Pb-Free package is available
- RoHS product for packing code suffix "G"
- Halogen free product for packing code suffix "H"
- Moisture Sensitivity Level 1

## MARKING: KAC

## High Voltage Surface Mount Switching Diode

| Maximum Ratings ( $T_A=25^{\circ}\text{C}$ unless otherwise specified) |                 |                      |                      |
|------------------------------------------------------------------------|-----------------|----------------------|----------------------|
| Characteristic                                                         | Symbol          | Value                | Unit                 |
| Repetitive Peak Reverse Voltage                                        | $V_{RRM}$       | 350                  | V                    |
| Working Peak Reverse Voltage                                           | $V_{RWM}$       | 300                  | V                    |
| DC Blocking Voltage                                                    | $V_R$           |                      | V                    |
| RMS Reverse Voltage                                                    | $V_{R(RMS)}$    | 212                  | V                    |
| Forward Continuous Current (Note 2)                                    | $I_F$           | 225                  | mA                   |
| Peak Repetitive Forward Current (Note 2)                               | $I_{FRM}$       | 625                  | mA                   |
| Non-Repetitive Peak Forward Surge Current                              |                 | @ $t=1.0\mu\text{s}$ | 4                    |
|                                                                        |                 | @ $t=1.0\text{s}$    | 1                    |
| Power Dissipation (Note 2)                                             | $P_D$           | 350                  | mW                   |
| Thermal Resistance from Junction to Ambient (Note 2)                   | $R_{\theta JA}$ | 357                  | $^{\circ}\text{C/W}$ |
| Operating/ Junction and Storage Temperature Range                      | $T_J, T_{STG}$  | -55~+150             | $^{\circ}\text{C}$   |

| Electrical Characteristics ( $T_A=25^{\circ}\text{C}$ unless otherwise specified) |            |                                                               |      |      |      |               |
|-----------------------------------------------------------------------------------|------------|---------------------------------------------------------------|------|------|------|---------------|
| Characteristic                                                                    | Symbol     | Test Condition                                                | Min. | Typ. | Max. | Unit          |
| Reverse Breakdown Voltage (Note 1)                                                | $V_{(BR)}$ | $I_R=100\mu\text{A}$                                          | 350  | —    | —    | V             |
| Reverse Current (Note 1)                                                          | $I_R$      | $V_R=240\text{V}$                                             | —    | 30   | 100  | nA            |
|                                                                                   |            | $V_R=240\text{V}, T_J=150^{\circ}\text{C}$                    | —    | 35   | 100  | $\mu\text{A}$ |
| Forward Voltage (Note 1)                                                          | $V_F$      | $I_F=20\text{mA}$                                             | —    | 0.78 | 0.87 | V             |
|                                                                                   |            | $I_F=100\text{mA}$                                            | —    | 0.93 | 1    |               |
|                                                                                   |            | $I_F=200\text{mA}$                                            | —    | 1.03 | 1.25 |               |
| Total Capacitance                                                                 | $C_T$      | $V_R=0\text{V}, f=1.0\text{MHz}$                              | —    | 1    | 5    | pF            |
| Reverse Recovery Time                                                             | $t_{rr}$   | $I_F=I_R=30\text{mA}$<br>$I_{rr}=3.0\text{mA}, R_L=100\Omega$ | —    | —    | 50   | ns            |

Notes: 1. Short duration test pulse used to minimize self-heating effect.

2. Part mounted on FR-4 board with recommended pad layout.

## High Voltage Surface Mount Switching Diode

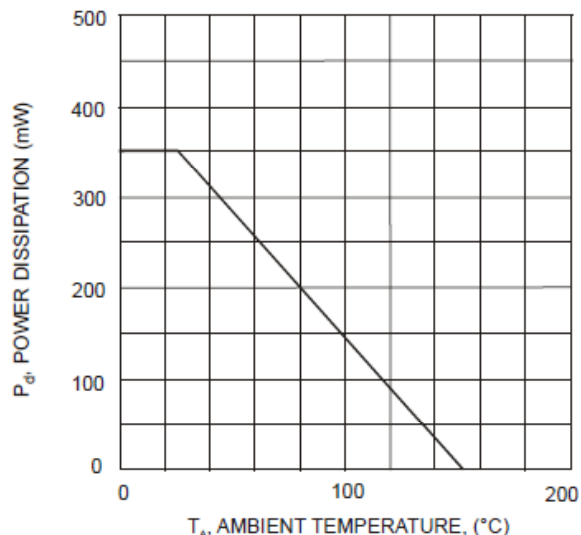


Fig. 1 Power Derating Curve, total package

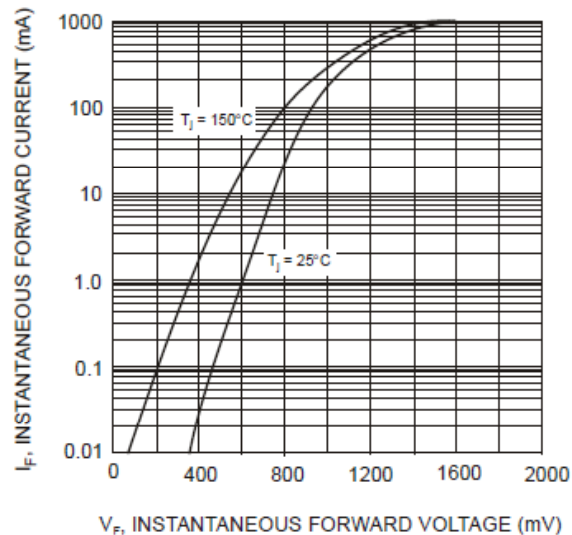


Fig. 2 Typical Forward Characteristics, per element

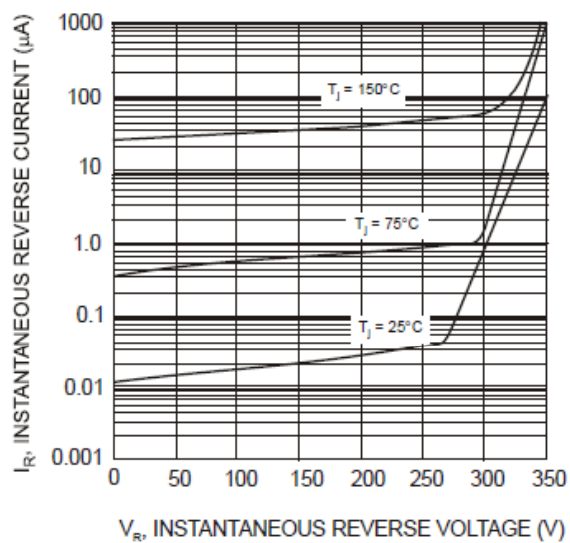


Fig. 3 Typical Reverse Characteristics, per element

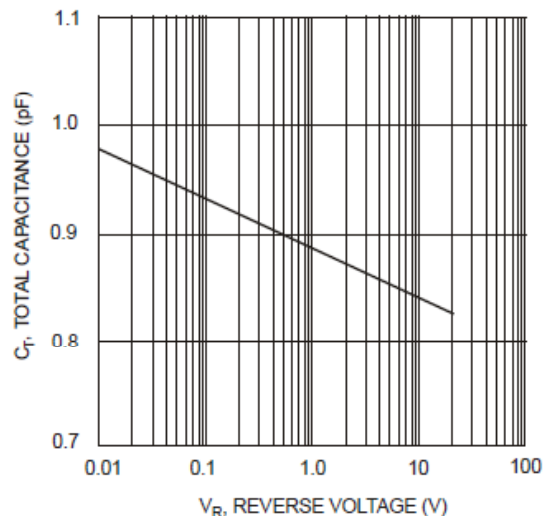


Fig. 4 Typical Total Capacitance vs. Reverse Voltage, per element