

■ Features

- AC circuit oriented
- Glass-passivated junctions
- High surge current capability

■ Applications

- High voltage lamp ignitors
- Natural gas ignitors
- Gas oil ignitors
- High voltage power supplies
- Xenon ignitors
- Over voltage protector
- Pulse generators
- Fluorescent lighting ignitors
- HID surge current capability

■ General Description

The sidac is a silicon bilateral voltage triggered switch with greater power-handling capabilities than standard diacs. Upon application of a voltage exceeding the sidac breakover voltage point, the sidac switches on through a negative resistance region to a low on-state voltage. Conduction continues until the current is interrupted or drops below the minimum holding current of the device.

CERAMATE offers a voltage range of 95 V to 330 V in DO-15 package.

CERAMATE's sidacs feature glass passivated junctions to ensure a rugged and dependable device capable of withstanding harsh environments.

Variations of devices covered in this data sheet are available for custom design applications. Consult the factory for more information.

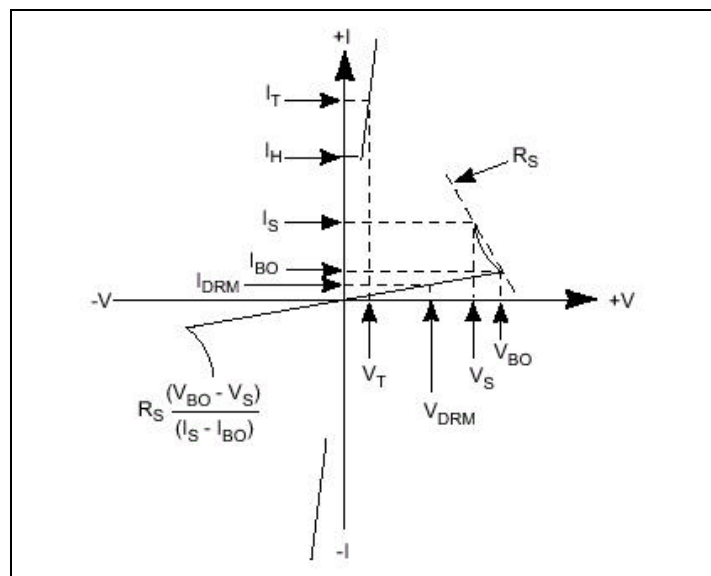
■ Electrical Characteristics

| Part No | V_{BO} | | V_{DRM} | I_{DRM} | I_T | I_H | V_{TM} |
|---------|---|---------|------------------|-------------------------------------|---------------------------------------|-----------------|----------------------------------|
| | Breakover Voltage (Instantaneous clamping voltage) | | Blocking Voltage | Peak Off-state Current at V_{DRM} | Continuous On-state DC or RMS Current | Holding Current | Peak On-state Voltage $I_T = 1A$ |
| | MIN (V) | MAX (V) | MIN (V) | MAX (μA) | MAX (A) | MAX (mA) | MAX (V) |
| K105 | 95 | 113 | 75 | 10 | 1.0 | 100 | 1.5 |
| K110 | 104 | 118 | 85 | 10 | 1.0 | 100 | 1.5 |
| K120 | 110 | 125 | 90 | 10 | 1.0 | 100 | 1.5 |
| K130 | 120 | 138 | 95 | 10 | 1.0 | 100 | 1.5 |
| K140 | 130 | 146 | 105 | 10 | 1.0 | 100 | 1.5 |
| K150 | 140 | 170 | 115 | 10 | 1.0 | 100 | 1.5 |
| K200 | 190 | 215 | 150 | 10 | 1.0 | 100 | 1.5 |
| K220 | 205 | 230 | 165 | 10 | 1.0 | 100 | 1.5 |
| K240 | 220 | 250 | 175 | 10 | 1.0 | 100 | 1.5 |
| K250 | 240 | 280 | 190 | 10 | 1.0 | 100 | 1.5 |
| K300 | 270 | 330 | 215 | 10 | 1.0 | 100 | 1.5 |

* All specs and applications shown above subject to change without prior notice.

| Series | I _{PP} | | | I _{TSM} | | di/dt |
|--------|---|------------|-------------|---|----------|---|
| | Peak pulse current, T _J < 150° C | | | Peak one Cycle (sinusoidal) Surge Current | | Critical Rate of Rise of On-state Current |
| | (10×160μs) | (10×560μs) | (10×1000μs) | | | |
| | Max (A) | Max (A) | Max (A) | 60Hz (A) | 50Hz (A) | TYPICAL (A/μs) |
| K | 60 | 35 | 35 | 20 | 16.7 | 100 |

■ V-I Characteristics



■ Package Dimensions

| K Series / DO-15 | Ref | Inches | | Millimeters | |
|------------------|-----|--------|-------|-------------|------|
| | | Min | Max | Min | Max |
| | A | 1.0 | | 25.4 | |
| | B | 0.22 | 0.30 | 5.60 | 7.60 |
| | C | 0.028 | 0.035 | 0.70 | 0.90 |
| | D | 0.10 | 0.15 | 2.60 | 3.80 |

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