

Ultra-Fast recovery high voltage diodes

Reverse Voltage – 8kV

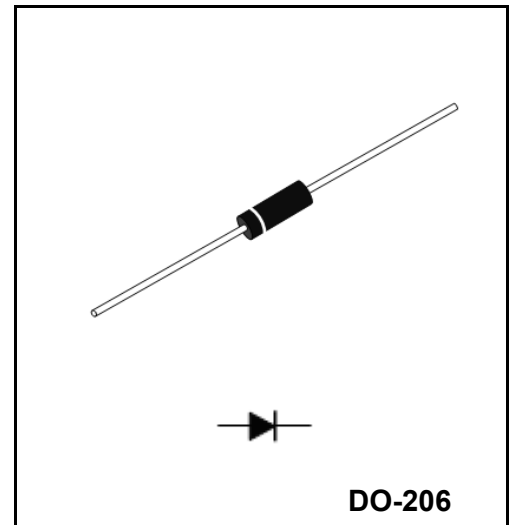
Forward Current –10mA

FEATURES

- ◆Supersmall size
- ◆High reliability
- ◆High speed switching

MECHANICAL DATA

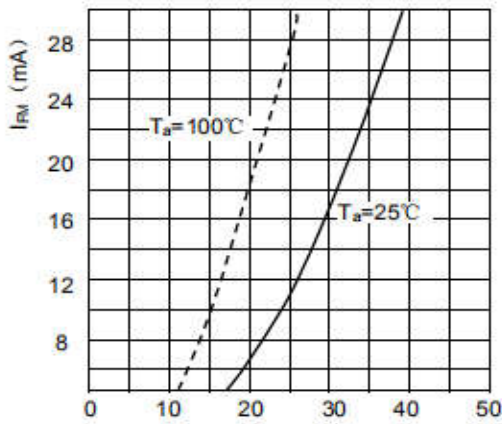
- ◆Case: Molded Plastic Body
- ◆Epoxy meets UL 94V-0 flammability rating
- ◆Terminals: Pure tin plated leads, solderable per J-STD-002and JESD22-B102, E3 suffix for consumer grade, meet JESD201class 1A whisker test.
- ◆Polarity: Color band denotes cathode end



Maximum rating (Ta=25°C unless otherwise noted)

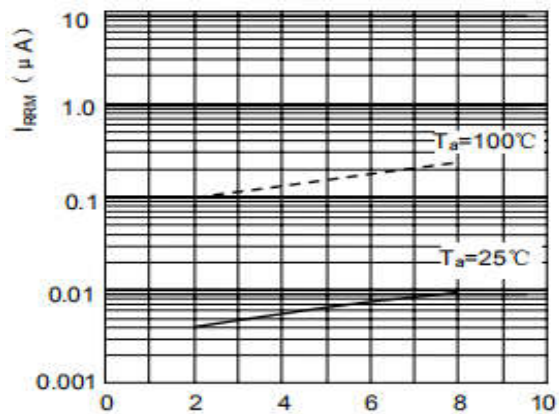
| Parameter | | Symbol | 2CL01 | Unit |
|--|---|-------------|------------|------|
| Repetitive peak reverse voltage | | V_{RRM} | 8 | KV |
| Non-Repetitive peak reverse voltage | | V_{RSM} | 10 | KV |
| Average forward current | 60Hz half-sine wave, Resistance load, Ta=25°C | $I_{F(AV)}$ | 10 | mA |
| Surge(Non-repetitive)forward current | 60Hz half-sine wave, 1cycle, Ta=25°C | I_{FSM} | 0.5 | A |
| Peak forward voltage | $I_{FM}=10mA$ | V_{FM} | 28 | V |
| Peak reverse current $V_{RM}=V_{RRM}$ | Ta=25°C | I_{RRM} | 2 | μA |
| | Ta=100°C | | 5 | |
| Reverse recovery time | $I_F=2mA, I_{RM}=4mA$ | T_{rr} | 0.05 | uS |
| Operating ambient temperature | | T_a | -40 ~ +100 | °C |
| Storage Temperature Range | | T_{stg} | -40 ~ +120 | °C |
| Virtual junction temperature | | $T_{(vj)}$ | 120 | °C |

Typical characteristics



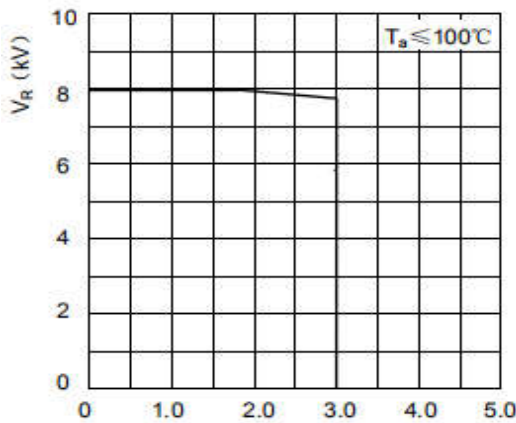
V_{FM} (V)

Forward Characteristics



V_{RM} (kV)

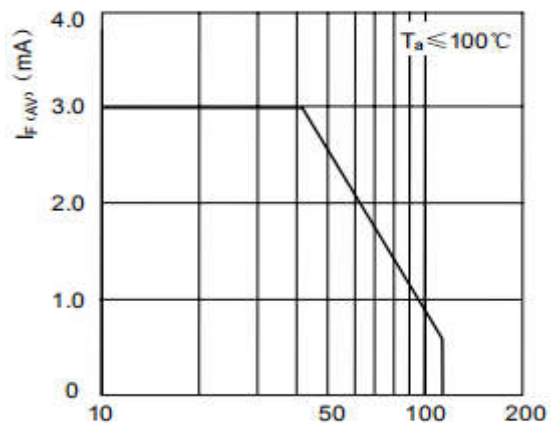
Reverse Characteristics



$I_{F(AV)}$ (mA)

$V_R - I_{F(AV)}$

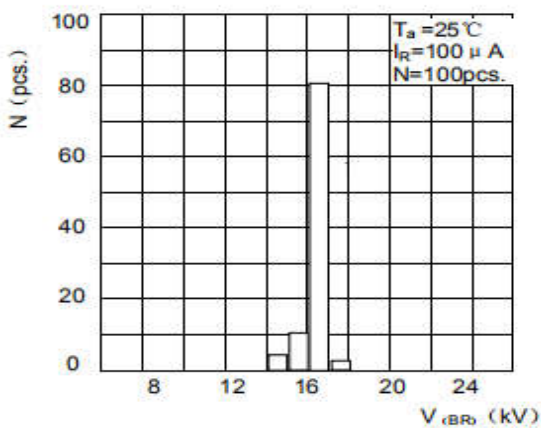
$V_R - I_{F(AV)}$ Curve



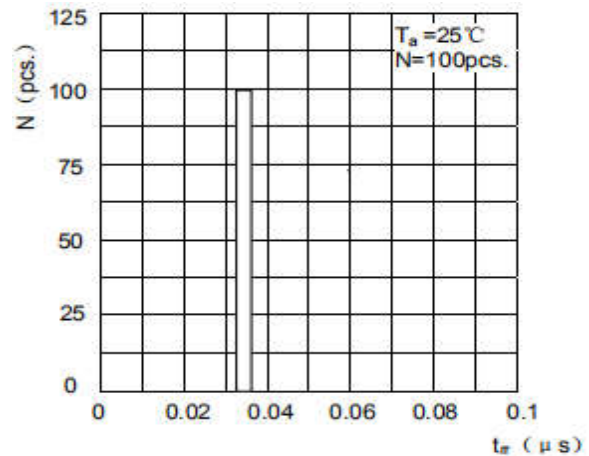
f_H (kHz)

$I_{F(AV)} - f_H$

$I_{F(AV)} - f_H$ Curve

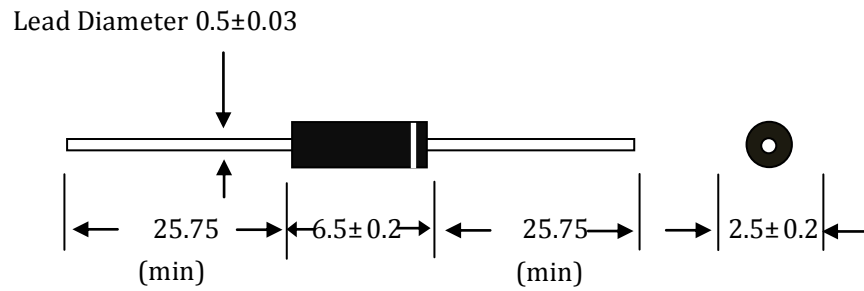


Breakdown Voltage Distribution



Reverse Recovery Time Distribution

Package outline dimensions



Summary of Packing Options

| Package | Packing Description | Packing Quantity | Industry Standard |
|---------|---------------------|------------------|-------------------|
| DO-206 | BOX | 5000 | EIA-481-1 |