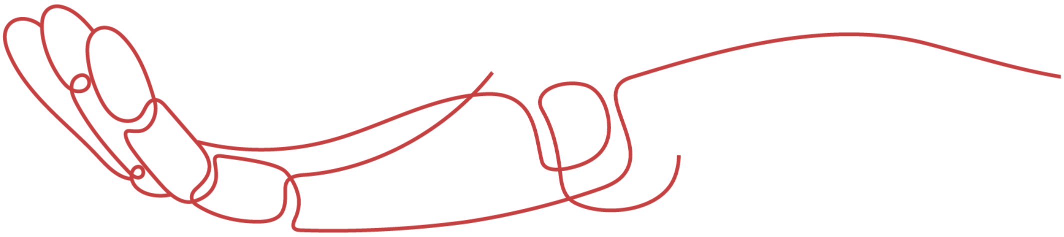
JG Techology

# PRODUCT DATA SHEET



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**Datasheet** **Resources** **Samples**

Please note: Please check the JINGAO Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.jg-semi.cn. Please email any questions regarding the system integration to JINGAO_questions@jgsemi.com.

## Features

- Low forward voltage
- Thin & leadless package for space saving
- Pb free version, RoHS compliant,
  and Halogen free

**DFN1006(0402)**

## Mechanical Characteristics

- Case: DFN1006(0402) mold package
- Terminal: Sn/Au plated, solderable per
  MIL-STD-750, method 2026
- Marking: cathode band & BP
- Weight: 0.001 gram(approx.)

## Maximum Rating And Electrical Characteristics (at Ta=25℃ unless otherwise noted)

| Parameter | Condition | Symbol | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Repetitive peak reverse voltage |  | VRRM |  |  | 40 | V |
| Reverse voltage |  | VR |  |  | 40 | V |
| Average forward current |  | Io |  |  | 100 | mA |
| Forward current surge peak | 8.3 ms single half sine-wave superimposed on rate load ( JEDEC method) | IFSM |  |  | 1 | A |
| Storage/Operation temperature |  | $T_{Sgt}$ | -40 |  | 125 | ℃ |
| Junction temperature |  | $T_J$ |  |  | 125 | ℃ |
| Forward voltage | IF1=10mA<br>IF2=20mA<br>IF3=100mA | VF |  |  | 0.29<br>0.30<br>0.40 | V |
| Reverse current | VR=30V | IR |  |  | 30 | uA |

## Typical Characteristics

**Fig.1-forward characteristics**

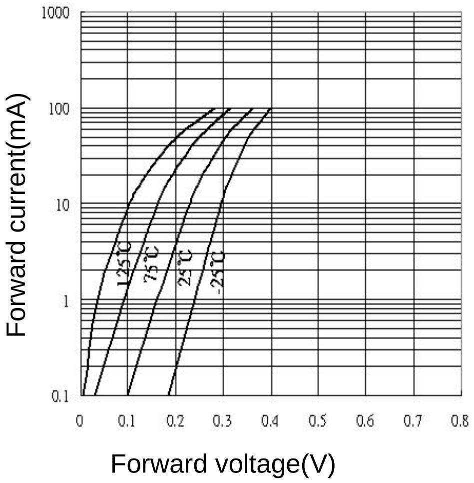


**Fig.2-Reverse characteristics**

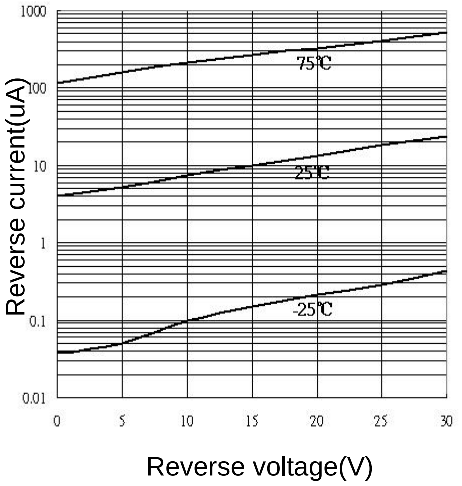


Fig.3 - Capacitance between terminals characteristics

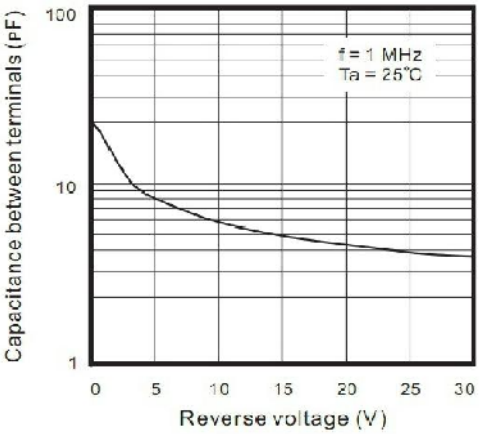


Fig.4 - Current derating curve

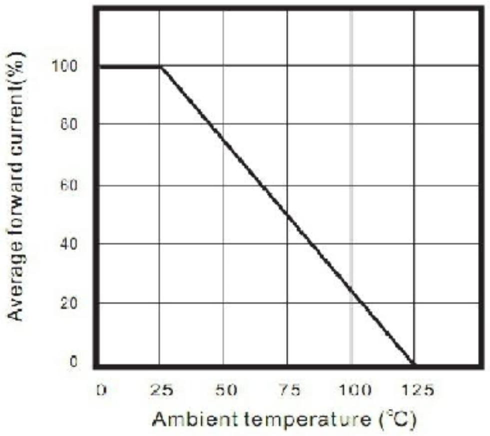


Fig. 5 - VF Dispersion map

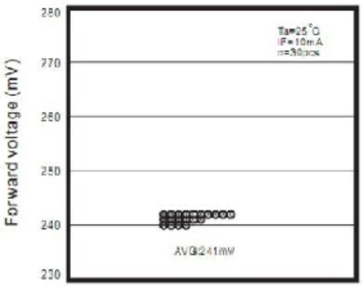


Fig. 6 - IR Dispersion map

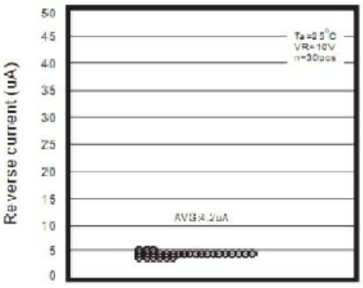
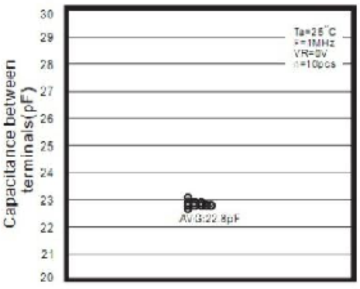
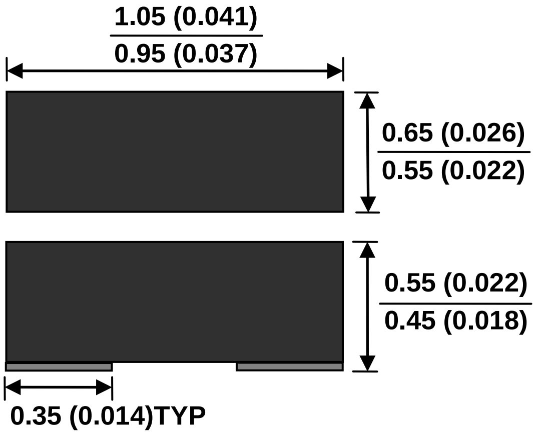


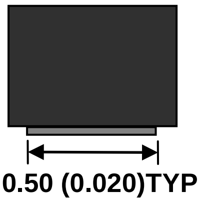
Fig. 7 - CT Dispersion map



## Packing Specification

**DFN1006(0402)**





Dimensions in millimeter and (inches)

## Tape & Reel Dimensions

| Package | Unit | A | B | C | d | D |
|---|---|---|---|---|---|---|
| DFN1006 | mm | 0.67±0.10 | 1.12±0.10 | 0.60±0.10 | 1.50±0.10 | 178±1 |
| | inch | 0.026±0.004 | 0.044±0.004 | 0.024±0.004 | 0.060±0.004 | 7.008±0.04 |

| Package | Unit | D1 | D2 | E | F | P |
|---|---|---|---|---|---|---|
| DFN1006 | mm | 60MIN | 13.0±0.20 | 1.75±0.10 | 3.5±0.10 | 4.0±0.10 |
| | inch | 2.362MIN | 0.512±0.008 | 0.069±0.004 | 0.138±0.004 | 0.157±0.004 |

| Package | Unit | P0 | P1 | T | W | W1 |
|---|---|---|---|---|---|---|
| DFN1006 | mm | 4.0±0.10 | 2.0±0.10 | 0.22+0.03 | 8.0±0.10 | 13.5MAX |
| | inch | 0.157±0.004 | 0.079±0.004 | 0.009±0.002 | 0.315±0.004 | 0.531MAX |

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