

## Features

- \* Low forward voltage drop
- \* Low reverse current
- \* RoHS Compliant
- \* REACH & SVHC Compliant
- \* Halogen Compliant
- \* DFN1006 Package

## Package



DFN1006

## Circuit Diagram



Marking : F

## Ordering Information

| Part Number | Packaging         | Reel Size |
|-------------|-------------------|-----------|
| RB521BS-40  | 10000/Tape & Reel | 7 inch    |

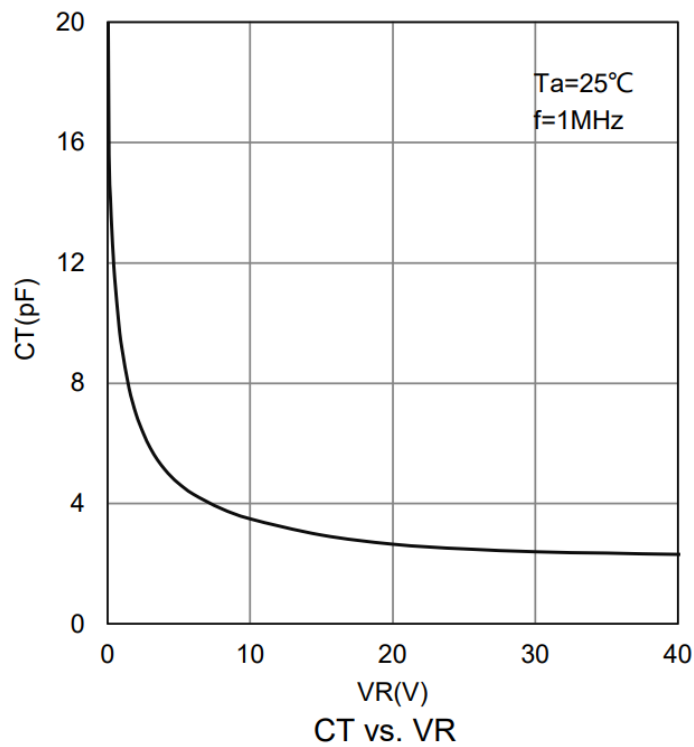
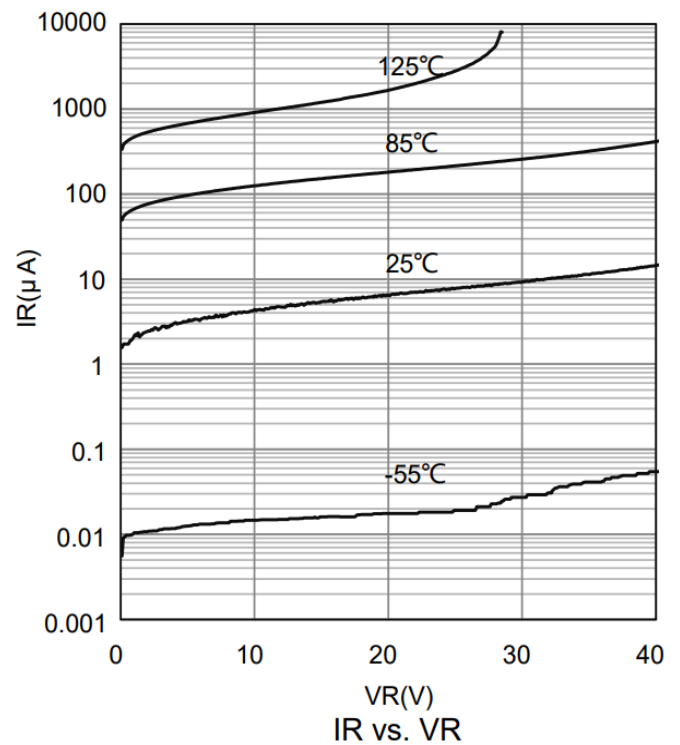
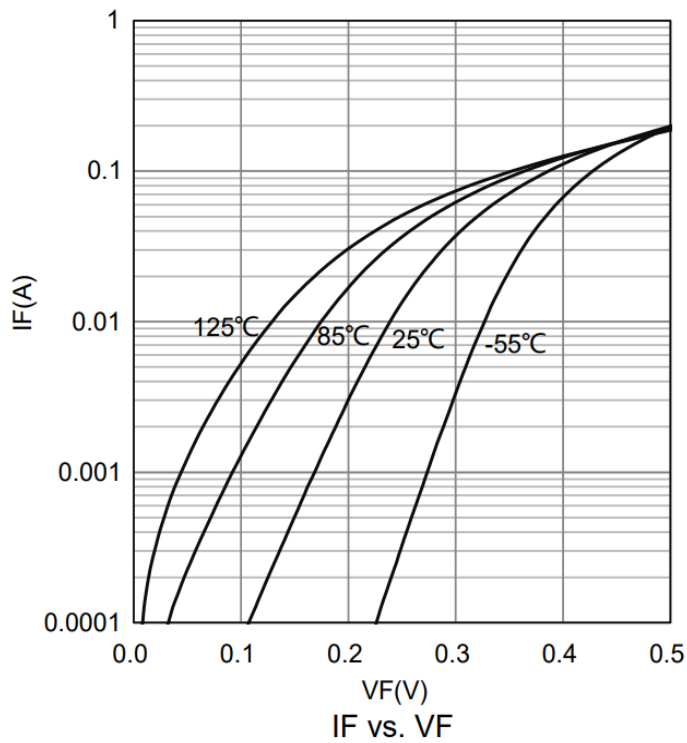
## Absolute Maximum Ratings ( $T_A=25^{\circ}\text{C}$ unless otherwise specified)

| Parameter                                              | Symbol       | Value       | Unit               |
|--------------------------------------------------------|--------------|-------------|--------------------|
| Repetitive peak reverse voltage                        | $V_{RRM}$    | 40          | V                  |
| DC blocking voltage                                    | $V_R$        | 40          | V                  |
| RMS reverse voltage                                    | $V_{R(RMS)}$ | 28          | V                  |
| Continuous forward current                             | $I_O$        | 0.2         | A                  |
| Non-repetitive peak forward current @ $t=8.3\text{ms}$ | $I_{FSM}$    | 0.5         | A                  |
| Power dissipation                                      | $P_D$        | 100         | mW                 |
| Junction temperature                                   | $T_J$        | -40 to +125 | $^{\circ}\text{C}$ |
| Storage temperature                                    | $T_{STG}$    | -55 to +150 | $^{\circ}\text{C}$ |

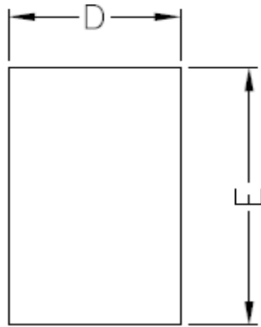
## Electrical Characteristics ( $T_A=25^{\circ}\text{C}$ unless otherwise specified)

| Parameter       | Symbol | Test Conditions     | Min | Typ | Max  | Unit          |
|-----------------|--------|---------------------|-----|-----|------|---------------|
| Reverse current | $I_R$  | $V_R = 10\text{V}$  |     |     | 1    | $\mu\text{A}$ |
| Forward voltage | $V_F$  | $I_F = 10\text{mA}$ |     |     | 0.35 | V             |
| Forward voltage | $V_F$  | $I_F = 20\text{mA}$ |     |     | 0.40 | V             |

**Typical Performance Characteristics**

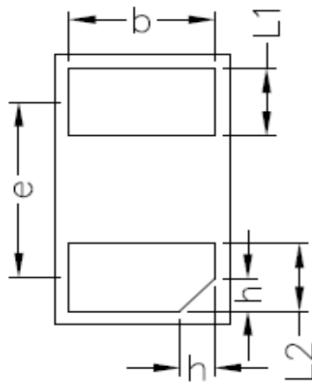


**DFN1006 Package Outline Drawing**

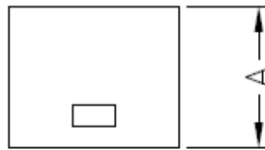


**TOP VIEW**

| SYM | DIMENSIONS  |      |      |           |       |       |
|-----|-------------|------|------|-----------|-------|-------|
|     | MILLIMETERS |      |      | INCHES    |       |       |
|     | Min         | Typ  | Max  | Min       | Typ   | Max   |
| A   | 0.50        | 0.55 | 0.60 | 0.020     | 0.022 | 0.024 |
| D   | 0.55        | 0.60 | 0.65 | 0.022     | 0.024 | 0.026 |
| E   | 0.95        | 1.00 | 1.05 | 0.037     | 0.039 | 0.041 |
| L1  | 0.20        | 0.25 | 0.30 | 0.008     | 0.010 | 0.012 |
| L2  | 0.20        | 0.25 | 0.30 | 0.008     | 0.010 | 0.012 |
| b   | 0.45        | 0.50 | 0.55 | 0.018     | 0.020 | 0.022 |
| e   | 0.65 BSC    |      |      | 0.026 BSC |       |       |
| h   | 0.07        | 0.12 | 0.17 | 0.003     | 0.005 | 0.007 |

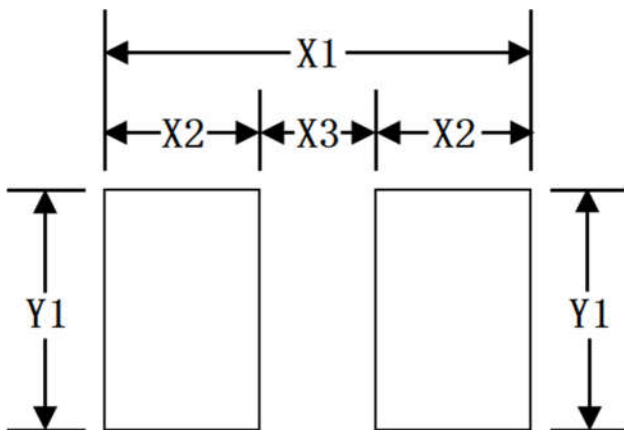


**BOTTOM VIEW**



**SIDE VIEW**

**Suggested Land Pattern**



| SYM | DIMENSIONS  |        |
|-----|-------------|--------|
|     | MILLIMETERS | INCHES |
| X1  | 1.10        | 0.044  |
| X2  | 0.40        | 0.016  |
| X3  | 0.30        | 0.012  |
| Y1  | 0.60        | 0.024  |

**Note:**

1. General tolerance:  $\pm 0.05$  mm or  $\pm 0.002$  inch.
2. The land pattern is for reference purposes only.