

## Schottky Barrier Diode

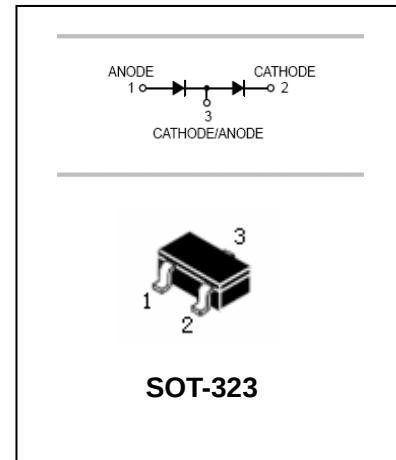
## RB706F-40

### FEATURES

- Small surface mounting type.
- Low  $V_F$  and low  $I_R$ .
- High reliability.



Lead-free



### APPLICATIONS

- For general purpose applications.

### ORDERING INFORMATION

| Type No.  | Marking | Package Code |
|-----------|---------|--------------|
| RB706F-40 | 3J      | SOT-323      |

### MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

| Parameter                           | Symbol    | Limits      | Unit             |
|-------------------------------------|-----------|-------------|------------------|
| Non-Repetitive Peak reverse voltage | $V_{RM}$  | 45          | V                |
| Diode reverse voltage               | $V_R$     | 40          | V                |
| Average output Current              | $I_O$     | 30          | mA               |
| Forward Surge Current (10ms)        | $I_{FSM}$ | 200         | mA               |
| Power Dissipation                   | $P_d$     | 100         | mW               |
| Junction temperature                | $T_j$     | 125         | $^\circ\text{C}$ |
| Storage temperature range           | $T_{stg}$ | -55 to +125 | $^\circ\text{C}$ |

### 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   | $V_F$  | $I_F=1\text{mA}$                  |     |      | 0.37 | V             |
| Diode capacitance | $C_D$  | $V_R=1\text{V}$ , $f=1\text{MHz}$ |     | 2    |      | pF            |

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TYPICAL CHARACTERISTICS @  $T_a=25^\circ\text{C}$  unless otherwise specified

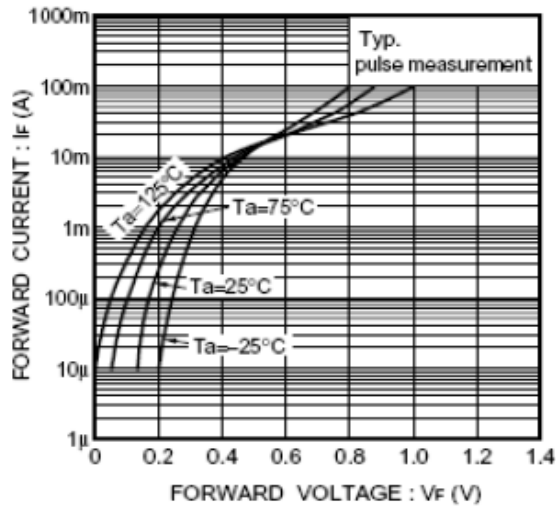


Fig. 1 Forward characteristics

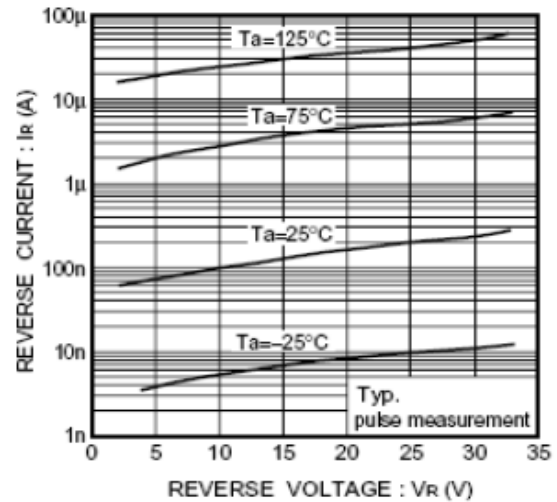


Fig. 2 Reverse characteristics

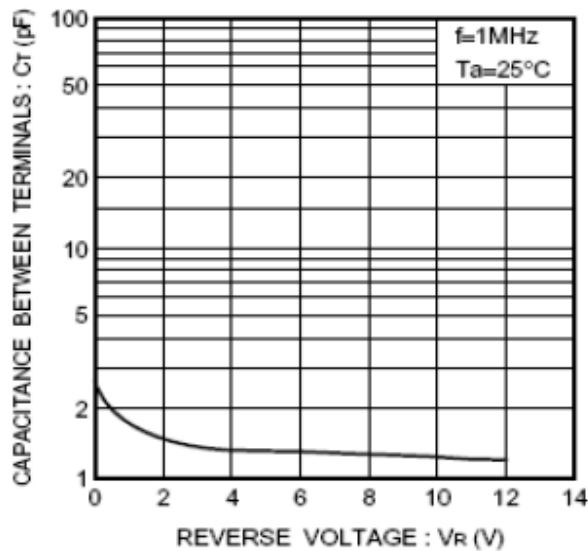


Fig. 3 Capacitance between terminals characteristics

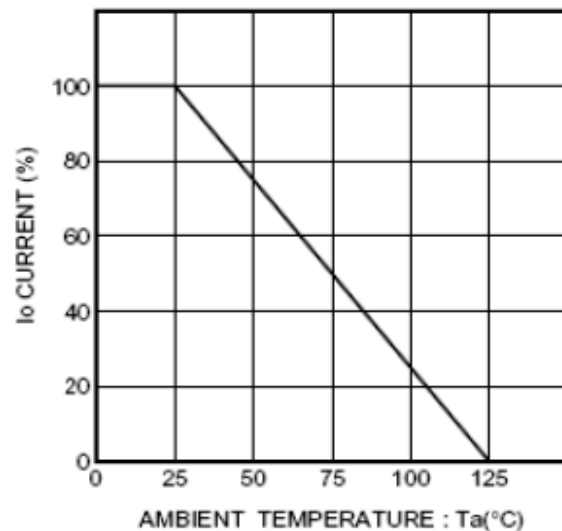


Fig 4. Derating curve  
(mounting on glass epoxy PCBs)

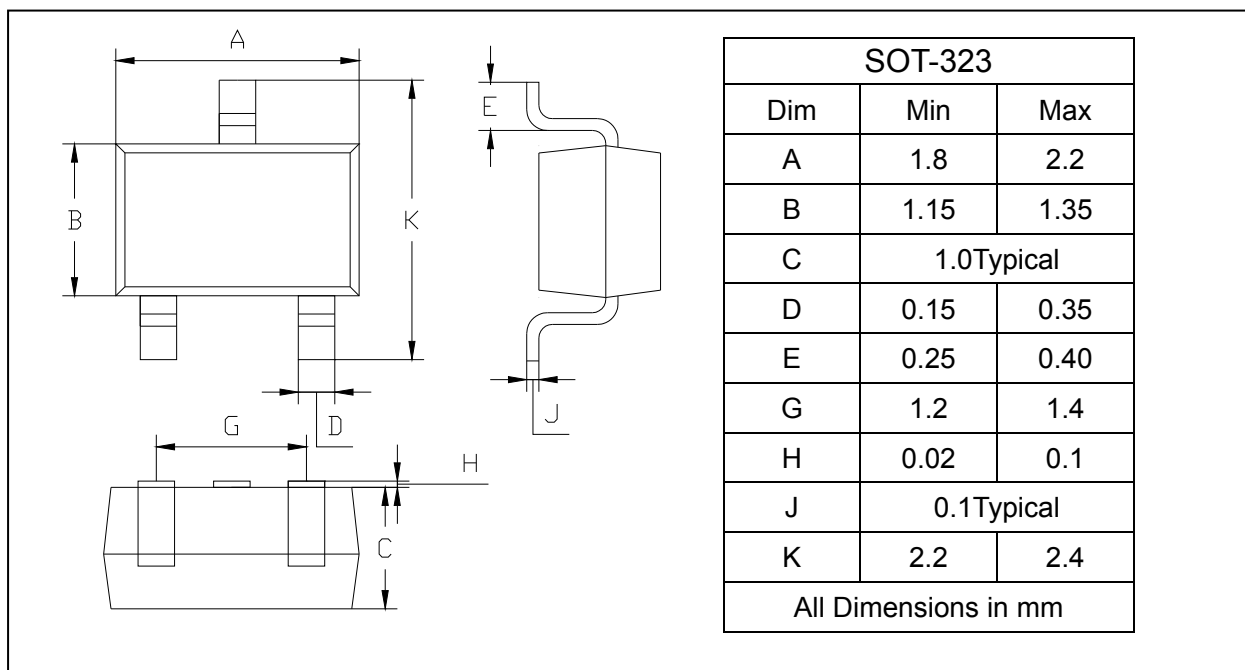
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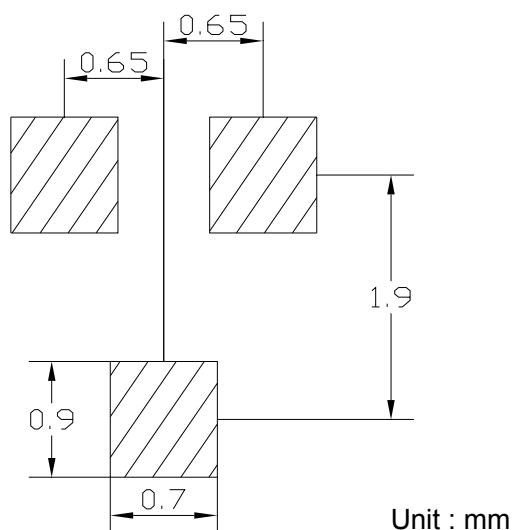
### PACKAGE OUTLINE

Plastic surface mounted package

SOT-323



### SOLDERING FOOTPRINT



### PACKAGE INFORMATION

| Device    | Package | Shipping       |
|-----------|---------|----------------|
| RB706F-40 | SOT-323 | 3000/Tape&Reel |