

■ Features

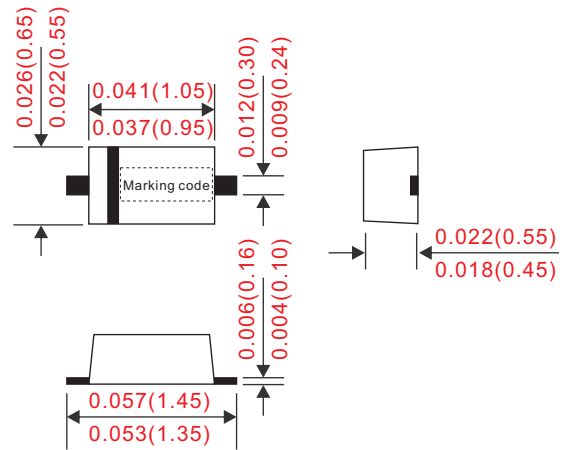
- Low current rectification and high speed switching.
- Extremely small surface mount type.
- Silicon epitaxial planar chip, metal silicon junction.
- Suffix "G" indicates Halogen-free part, ex. RB751GG-40.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

■ Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-723
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Weight : Approximated 0.00077 gram

■ Outline

SOD-723



Dimensions in inches and (millimeters)

■ Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Parameter | Symbol | RB751G-40 | UNIT |
|--|-----------------|------------|------|
| Marking code | | 5 | |
| Maximum Recurrent Peak Reverse Voltage | V_{RM} | 40 | V |
| Continuous reverse voltage | V_R | 40 | V |
| Maximum Instantaneous Forward Voltage@1mA DC | V_F | 0.37 | V |
| Power Dissipation | P_D | 150 | mW |
| Thermal resistance junction to ambient | $R_{\theta JA}$ | 600 | °C/W |
| Operating Temperature | T_J | -40 ~ +125 | °C |
| Storage temperature | T_{STG} | -40 ~ +125 | °C |

| Parameter | Conditions | Symbol | MIN. | TYP. | MAX. | UNIT |
|-------------------------------|--|-----------|------|------|------|------|
| Mean rectifying current | | I_o | | | 30 | mA |
| Forward surge current | 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | I_{FSM} | | | 200 | mA |
| Reverse current | $V_R = 30V$ DC | I_R | | | 0.5 | uA |
| Capacitance between terminals | $V_R = 1V$ DC, $f = 1MHz$ | C_T | | 2 | | pF |

■ Rating and characteristic curves

FIG.1-TYPICAL FORWARD CHARACTERISTICS

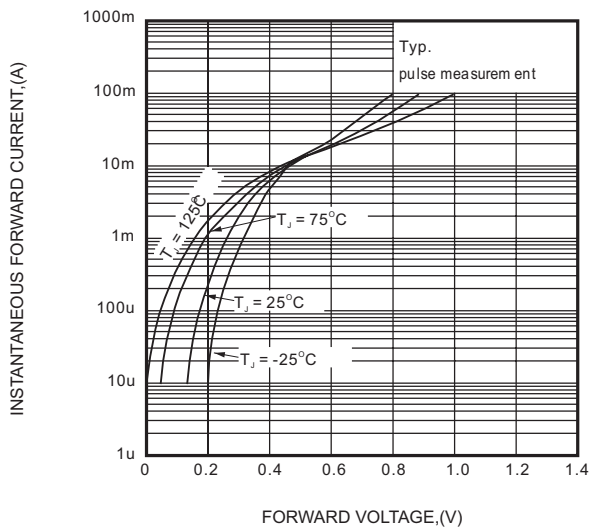


FIG.2 - TYPICAL REVERSE CHARACTERISTICS

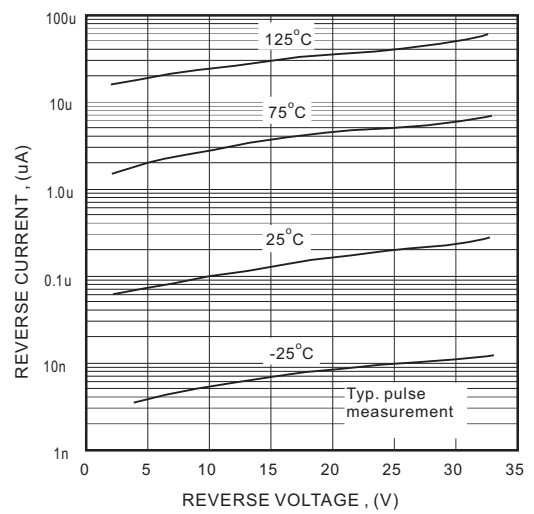
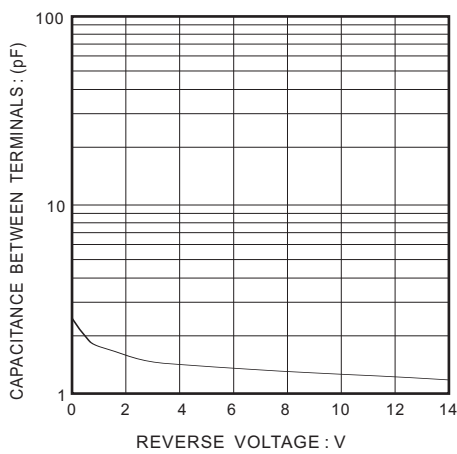
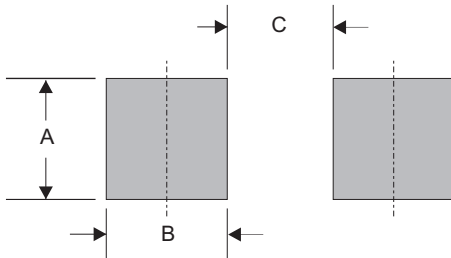


FIG.3-TYPICAL TERMINALS CAPACITANCE



■ SOD-723 foot print



| A | B | C |
|--------------|--------------|--------------|
| 0.018 (0.45) | 0.020 (0.50) | 0.035 (0.90) |

Dimensions in inches and (millimeters)

- CITC reserves the right to make changes to this document and its products and specifications at any time without notice.
- Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.
- CITC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does CITC assume any liability for application assistance or customer product design.
- CITC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.
- No license is granted by implication or otherwise under any intellectual property rights of CITC.
- CITC products are not authorized for use as critical components in life support devices or systems without express written approval of CITC.