

**SURFACE MOUNT
SCHOTTKY BARRIER DIODE**

**REVERSE VOLTAGE – 20 Volts
FORWARD CURRENT – 0.7 Ampere**

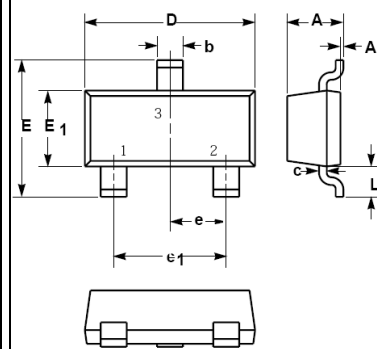
FEATURES

- Extremely Fast Switching Speed
- Low Forward Voltage
- Very Small Conduction Losses

MECHANICAL DATA

- Case: SOT-323 Plastic
- Case Material: "Green" molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Moisture Sensitivity: Level 1 per J-STD-020D
- Lead Free in RoHS 2002/95/EC Compliant

SOT-323



| SOT-323 | | |
|--------------------------|------------|------|
| Dim. | Min. | Max. |
| A | 0.90 | 1.10 |
| A1 | 0.00 | 0.10 |
| b | 0.20 | 0.40 |
| c | 0.08 | 0.15 |
| D | 2.00 | 2.20 |
| E | 2.15 | 2.45 |
| E1 | 1.15 | 1.35 |
| e | 0.65 Typ. | |
| e1 | 1.20 | 1.40 |
| L | 0.525 Ref. | |
| Dimensions in millimeter | | |

Maximum Ratings & Thermal Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

| Characteristic | Symbol | RB461F | Units |
|---|-----------|----------|------------------|
| Non-Repetitive Peak Reverse Voltage | V_{RM} | 25 | V |
| DC Blocking Voltage | V_R | 20 | V |
| Average Rectified Output Current | I_O | 700 | mA |
| Non-Repetitive Peak Forward Surge Current @ $t < 10\text{ms}$ | I_{FSM} | 3 | A |
| Power Dissipation | P_D | 150 | mW |
| Operating Temperature Range | T_J | 125 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -40~+125 | $^\circ\text{C}$ |

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

| Characteristic | Test Condition | Symbol | RB461F | Unit |
|---|------------------------|----------|--------|---------------|
| Reverse Breakdown Voltage | $I_R = 200\mu\text{A}$ | V_{BR} | 20 | V |
| Maximum Forward Voltage | $I_F = 700\text{mA}$ | V_F | 490 | mV |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | $V_R = 20\text{V}$ | I_R | 200 | μA |

REV. 2, Oct-2010, KSHR35

RATING AND CHARACTERISTIC CURVES

RB461F



FIG.1- TYPICAL FORDWARD CHARACTERISTICS

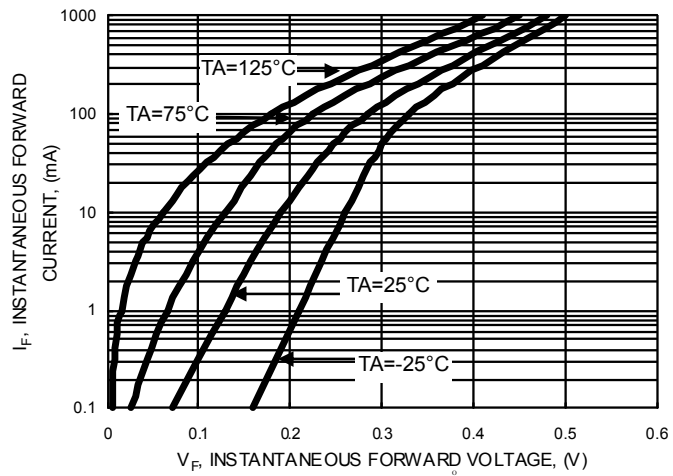


FIG.2- TYPICAL REVERSE CHARACTERISTICS

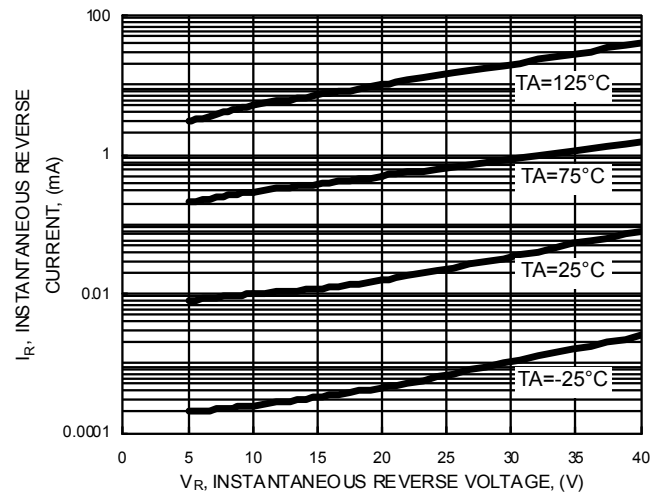
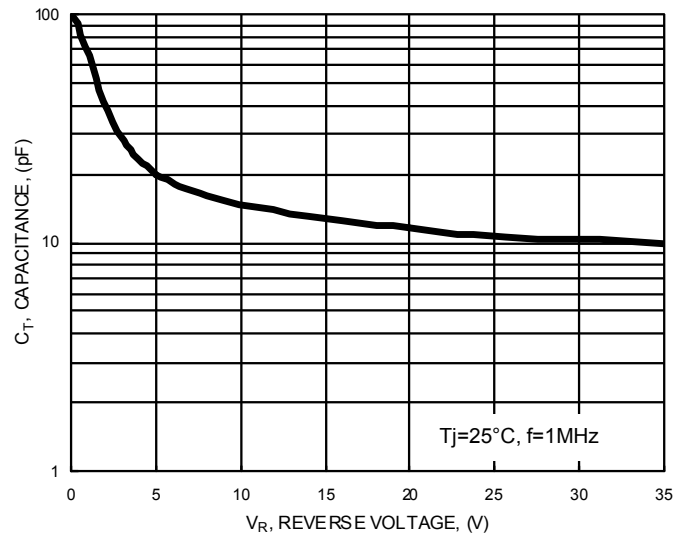


FIG.3- TYPICAL JUNCTION CAPACITANCE



Device Marking :

| Device P/N | Marking | Equivalent Circuit Diagram |
|------------|---------|--|
| RB461F | 3B | <div> <div>3</div> <div> <div>○</div> <div> <div> <div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div> </div> </div> <div>1</div> </div> </div> |

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