

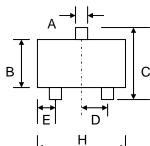


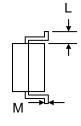
## SURFACE MOUNT SCHOTTKY BARRIER DIODE



### **Features**

- Low Forward Voltage
- Fast Switching Speed
- PN Junction Guard Ring for Transient and ESD Protection
- For General Purpose Switching Applications
- Plastic Material UL Recognition Flammability Classification 94V-0





## **Mechanical Data**

Case: SOT-323, Molded Plastic

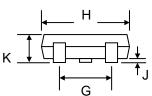
 Terminals: Plated Leads Solderable per MIL-STD-202, Method 208

Polarity: See Diagrams BelowWeight: 0.006 grams (approx.)

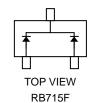
Marking: Device Code, See Page 3

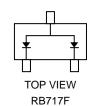
Mounting Position: Any

Lead Free: For RoHS / Lead Free Version,
 Add "-LF" Suffix to Part Number, See Page 4



| SOT-323 |                      |      |  |  |
|---------|----------------------|------|--|--|
| Dim     | Min                  | Max  |  |  |
| Α       | 0.25                 | 0.40 |  |  |
| В       | 1.15                 | 1.35 |  |  |
| С       | 2.00                 | 2.40 |  |  |
| D       | D 0.65 Nominal       |      |  |  |
| E       | 0.30                 | 0.40 |  |  |
| G       | 1.20                 | 1.40 |  |  |
| Н       | 1.80                 | 2.20 |  |  |
| J       | 1                    | 0.10 |  |  |
| K       | 0.90                 | 1.10 |  |  |
| L       | 0.25                 | _    |  |  |
| М       | 0.05                 | 0.15 |  |  |
| All D   | All Dimensions in mm |      |  |  |





## Maximum Ratings @T<sub>A</sub>=25°C unless otherwise specified

| Characteristic   | Symbol             | Value       | Unit |
|--|--------------------|-------------|------|
| Non-Repetitive Peak Reverse Voltage  | VRM                | 40          | V    |
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | VRRM<br>VRWM<br>VR | 40          | V    |
| Average Rectified Output Current   | lo                 | 30          | mA   |
| Non-Repetitive Peak Forward Surge Current, 60Hz  | IFSM               | 200         | mA   |
| Operating and Storage Temperature Range  | TJ, TSTG           | -40 to +125 | °C   |

# **Thermal Characteristics**

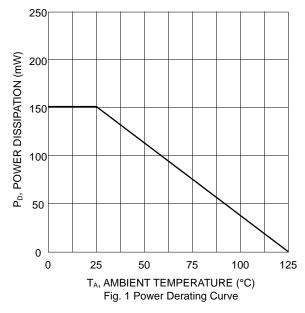
| Characteristic             | Symbol | Value | Unit |
|----------------------------|--------|-------|------|
| Power Dissipation (Note 1) | Pp     | 150   | mW   |

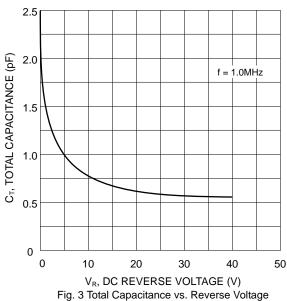
Note: 1. Mounted on FR-4 PC board with minimum recommended pad layout.

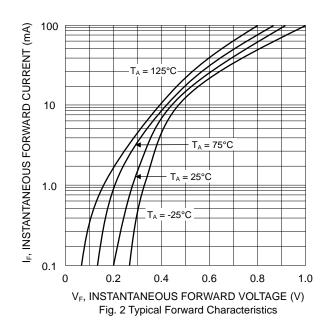


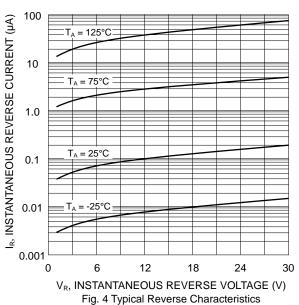
# Electrical Characteristics @TA=25°C unless otherwise specified

| Characteristic                            | Symbol       | Min.           | Тур. | Max. | Unit |    |
|---|--------------|----------------|------|------|------|----|
| Forward Voltage Drop                      | @ IF = 1.0mA | VF             |      |      | 0.37 | V  |
| Reverse Leakage Current                   | @ VR = 10V   | lr             |      |      | 1.0  | μA |
| Diode Capacitance (VR = 1.0V, f = 1.0MHz) |              | C <sub>D</sub> |      | 2.0  |      | pF |





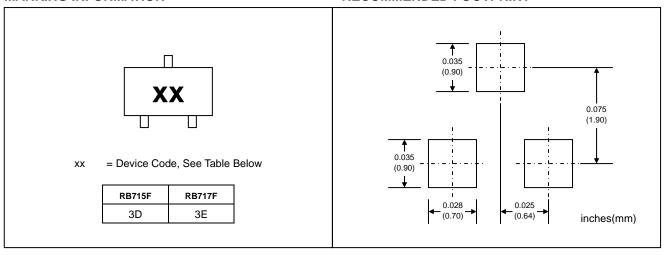




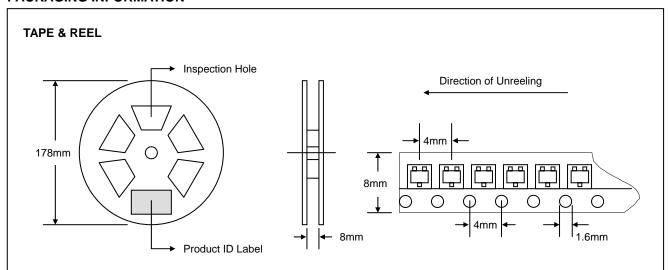


# **MARKING INFORMATION**

# RECOMMENDED FOOTPRINT



#### **PACKAGING INFORMATION**



| Reel Diameter (mm) | Quantity<br>(PCS) | Inner Box Size<br>L x W x H (mm) | Quantity<br>(PCS) | Carton Size<br>L x W x H (mm) | Quantity<br>(PCS) | Approx. Gross Weight (KG) |
|--------------------|-------------------|----------------------------------|-------------------|-------------------------------|-------------------|---------------------------|
| 178                | 3,000             | 187 x 187 x 65                   | 15,000            | 390 x 240 x 420               | 150,000           | 10.0                      |

Note: 1. Anti-static plastic reel, white, water clear or blue color. Inspection hole might be varied in different alignment.

<sup>2.</sup> Components are packed in accordance with EIA standard 481-1 and 481-2.



#### **ORDERING INFORMATION**

| Product No. | Package Type | Shipping Quantity |
|-------------|--------------|-------------------|
| RB715F-T1   | SOT-323      | 3000/Tape & Reel  |
| RB717F-T1   | SOT-323      | 3000/Tape & Reel  |

- 1. Shipping quantity given is for minimum packing quantity only. For minimum
- order quantity, please consult the Sales Department.

  To order RoHS / Lead Free version (with Lead Free finish), add "-LF" 2. suffix to part number above. For example, RB715F-T1-LF.

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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

Won-Top Electronics Co., Ltd. No. 44 Yu Kang North 3rd Road,

Chine Chen Dist., Kaohsiung 806, Taiwan Phone: 886-7-822-5408 or 886-7-822-5410

Fax: 886-7-822-5417 Email: sales@wontop.com Internet: http://www.wontop.com

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