

LBAS40-05LT1G

Schottky barrier diode

1. FEATURES

- Low forward current
- Guard ring protected
- Low diode capacitance.
- We declare that the material of product compliance with RoHS requirements and Halogen Free.

2. APPLICATIONS

- Ultra high-speed switching.
- Voltage clamping.
- Protection circuits.
- Blocking diodes.

3. DEVICE MARKING AND RESISTOR VALUES

| Device | Marking | Shipping |
|---------------|---------|----------------|
| LBAS40-05LT1G | 45 | 3000/Tape&Reel |

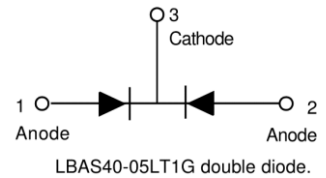
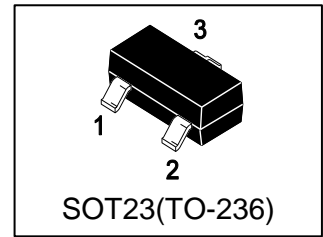
4. MAXIMUM RATINGS(Ta = 25°C)

| Parameter | Symbol | Limits | Unit |
|---|--------|----------|------|
| Continuous reverse voltage | VR | 40 | V |
| Continuous forward current | IF | 120 | mA |
| Repetitive Peak forward surge current(tp <1s,δ<0.5) | IFSM | 120 | mA |
| Non-repetitive peak forward current (tp <10ms) | IFSM | 200 | mA |
| Storage temperature | Tstg | -65~+150 | °C |
| Junction temperature | Tj | 150 | °C |
| Operating ambient temperature | Tamb | -65~+150 | °C |

5. THERMAL CHARACTERISTICS

| Parameter | Symbol | Limits | Unit |
|--|--------|--------|------|
| Total Power Dissipation | PD | 225 | mW |
| Thermal resistance from junction to ambient (Note 1) | RθJA | 500 | °C/W |
| Thermal resistance from junction to Case (Note 1) | RθJC | 300 | °C/W |

1. 30.0mm x25.0mm x1.6mm(FR4), Thickness of copper film:35um.

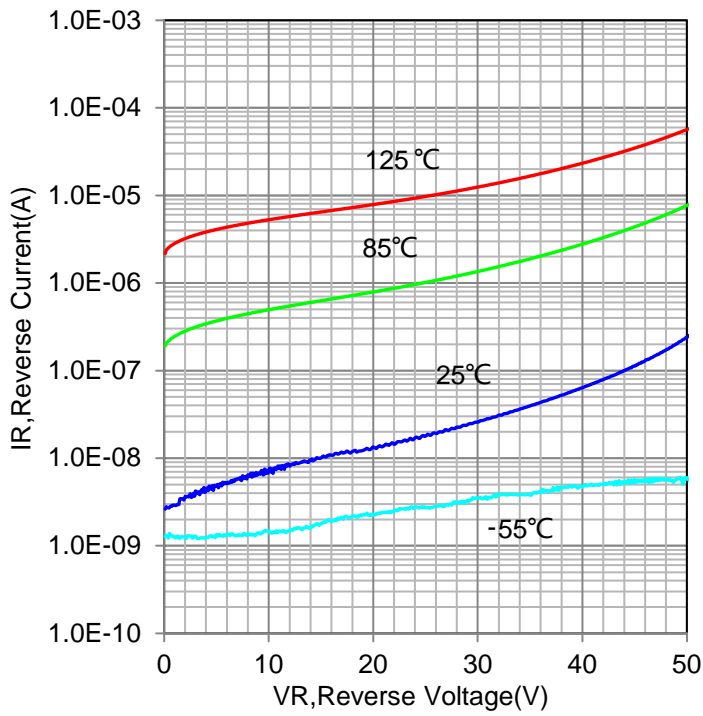


6. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

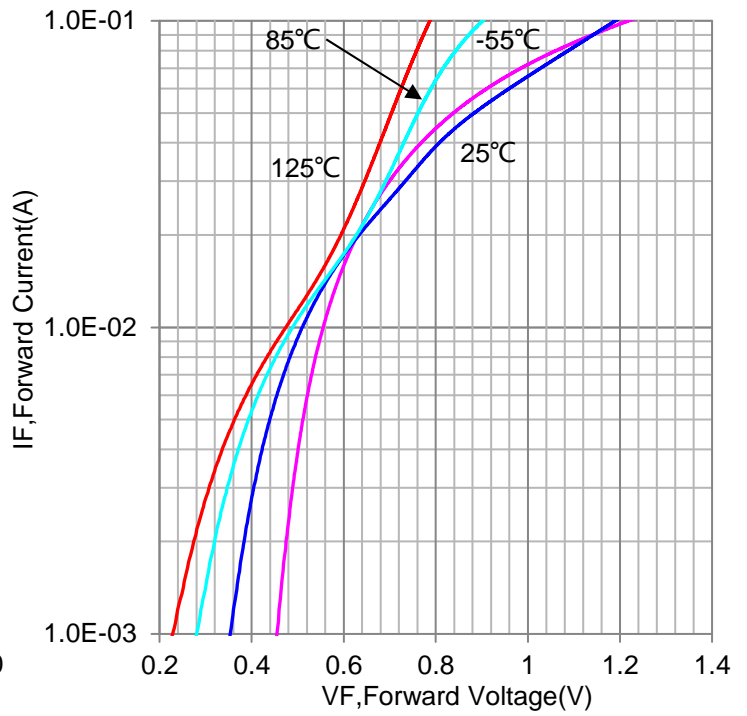
| CHARACTERISTICS | Symbol | Limits | Unit |
|-------------------------------------|--------|--------|------|
| Forward voltage (IF =1mA) | VF | 400 | mV |
| (IF =10mA) | | 560 | mV |
| (IF =40mA) | | 1 | V |
| Reverse current(Note 2) (VR=30V) | IR | 1 | μA |
| (VR=40V) | | 10 | μA |
| Diode capacitance (f=1MHz,VR =0) | Cd | 5 | pF |

2.Pulse test:tp =300μs,δ=0.02.

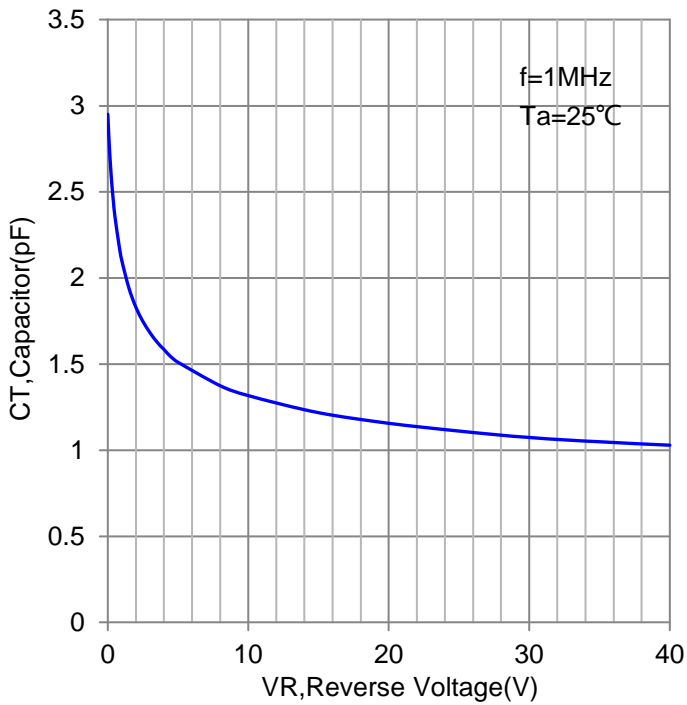
7. ELECTRICAL CHARACTERISTICS CURVES



IR vs. VR

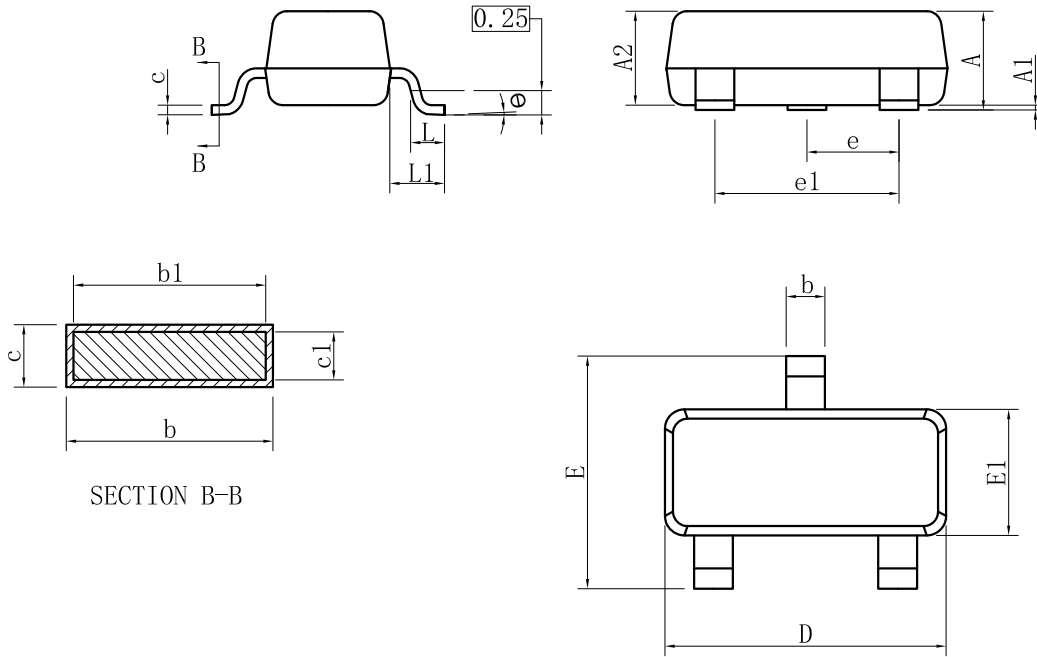


IF vs. VF



CT vs. VR

8. OUTLINE AND DIMENSIONS

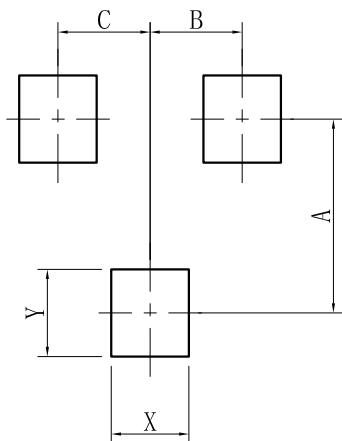


| SOT23 | | | |
|----------------------|---------|------|------|
| DIM | MIN | NOR | MAX |
| A | 0.89 | - | 1.12 |
| A1 | 0.01 | - | 0.10 |
| A2 | 0.88 | 0.95 | 1.02 |
| b | 0.30 | - | 0.50 |
| b1 | 0.30 | 0.40 | 0.45 |
| c | 0.08 | - | 0.20 |
| c1 | 0.08 | 0.10 | 0.16 |
| D | 2.80 | 2.90 | 3.04 |
| E | 2.10 | - | 2.64 |
| E1 | 1.20 | 1.30 | 1.40 |
| e | 0.95BSC | | |
| e1 | 1.90BSC | | |
| L | 0.40 | 0.46 | 0.60 |
| L1 | 0.54REF | | |
| θ | 0° | - | 8° |
| All Dimensions in mm | | | |

GENERAL NOTES

1. Top package surface finish $Ra0.4 \pm 0.2\mu m$
2. Bottom package surface finish $Ra0.7 \pm 0.2\mu m$
3. Side package surface finish $Ra0.4 \pm 0.2\mu m$

9. SOLDERING FOOTPRINT



| SOT-23 | |
|--------|------|
| DIM | (mm) |
| X | 0.80 |
| Y | 0.90 |
| A | 2.00 |
| B | 0.95 |
| C | 0.95 |

DISCLAIMER

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.
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