

GOOD-ARK Electronics

0.07A, 70V Surface Mount Schottky Barrier Diodes

Features

- AEC-Q101 Qualified
- Low turn-on voltage
- Fast switching
- Halogen and Antimony Free(HAF), RoHS compliant





SOT-23

Epuivalent circuit

Mechanical Data

• SOT-23 Small Outline Plastic Package

• Epoxy UL: 94V-0

| | ABAS70 | ABAS70-04 | ABAS70-05 | ABAS70-06 | |
|---------|--------|-----------|-----------|-----------|--|
| Package | 1 2 | 3 1 2 | 1 2 | 1 2 | |
| | | | | | |

| Maximum Ratings& Thermal Characteristic(TA=25°C unless otherwise noted) | | | | | | | | |
|---|--------------------|---------------|------|--|--|--|--|--|
| Parameters | Symbol | Value | Unit | | | | | |
| Repetitive Peak Reverse Voltage | V_{RRM} | 70 | V | | | | | |
| Non-Repetitive Peak Reverse Voltage | V _{RSM} | 70 | V | | | | | |
| Maximum DC Blocking Voltage | V_R | 70 | V | | | | | |
| Average Forward Rectified Current | I _{F(AV)} | 70 | mA | | | | | |
| Peak Forward Surge Current (t <10 ms) | I _{FSM} | 100 | mA | | | | | |
| Power Dissipation | P _D | 200 | mW | | | | | |
| Operating Junction Temperature Range | Tj | - 55 to + 125 | °C | | | | | |
| Storage Temperature Range | T _{stg} | - 65 to + 150 | °C | | | | | |

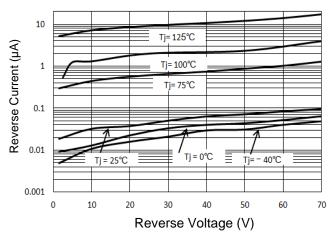
| Thermal Characteristics | | | |
|--|----------------|-----|------|
| Parameter | Symbol | Тур | Unit |
| Typical Thermal Resistance from Junction to Ambient (Note 1) | $R_{	heta JA}$ | 500 | °C W |

Note 1: Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.



| Electrical Characteristics (T _J =25°C unless otherwise noted) | | | | | | | | |
|--|--------------------|---|------|------|------|--|--|--|
| Parameter | Symbol | Test Conditions | Min. | Max. | Unit | | | |
| Reverse Breakdown Voltage | V _{(BR)R} | I _R =10µA | 70 | - | V | | | |
| Forward Voltage | VF | I _F =1mA | - | 0.41 | V | | | |
| | | IF = 15mA | | 1 | | | | |
| Reverse Current | I _R | V _R =50V | - | 100 | nA | | | |
| Reverse Recovery Time | t _{rr} | From I _F = 10 mA through I _R = 10 mA to I _R = 1 mA, R _L =100 Ω | - | 5 | ns | | | |
| Total Capacitance | Ст | $V_R = 0V$, $f = 1MHz$ | | 2 | pF | | | |

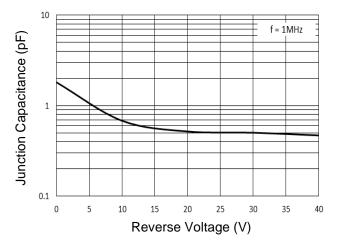
Typical Characteristics Curves (T_J = 25°C unless otherwise noted)



100 Tj =125℃ Forward Current (mA) Tj =-40℃ 0.1 1.5 2.5 Forward Voltage (V)

Fig 1. Reverse Characteristics Curve

Fig 2. Forward Characteristics Curve





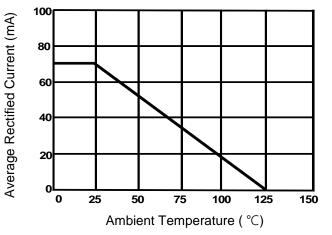
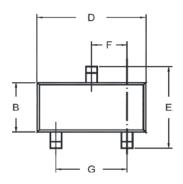
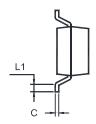


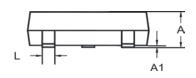
Fig 4. Average Rectified Current Derating Curve

Package Outline Dimensions (Unit: millimeters)

SOT-23

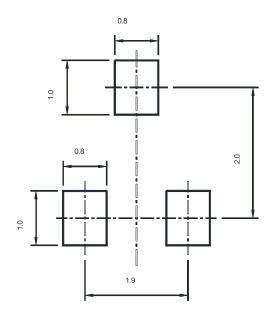






| Unit | Α | A1 | В | С | D | E | F | G | L | L1 |
|------|------|-------|------|------|------|-----|------|------|------|-----|
| mm | 1.20 | 0.100 | 1.40 | 0.19 | 3.04 | 2.6 | 1.02 | 2.04 | 0.51 | 0.2 |
| | 0.89 | 0.013 | 1.20 | 0.08 | 2.80 | 2.2 | 0.89 | 1.78 | 0.37 | MIN |

Recommended Soldering Footprint (Unit: millimeters)

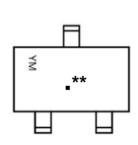




Packing information

| Package | Tape Width | | Pitch | Reel | Size | Per Reel Packing | |
|---------|------------|-------|-------------|------|------|------------------|--|
| SOT-23 | mm | mm | inch | mm | inch | Quantity | |
| 301-23 | 8 | 4±0.1 | 0.157±0.004 | 178 | 7 | 3000 | |

Marking information



Font type: Arial

| Туре | Marking | Type | Marking | Type | Marking | Type | Marking |
|--------|---------|-----------|---------|-----------|---------|-----------|---------|
| ABAS70 | 73 | ABAS70-04 | 74 | ABAS70-05 | 75 | ABAS70-06 | 76 |

Revision History

| Version | Date | Description of changes |
|---------|------------|------------------------|
| Rev.A | 2025.10.16 | Primary |
| | | |
| | | |



ABAS70 / -04 / -05 / -06

GOOD-ARK Flectronics

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