

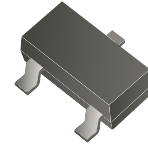
ABAS16-HF

Reverse Voltage: 75 Volts

Forward Current: 150 mA

RoHS Device

Halogen Free



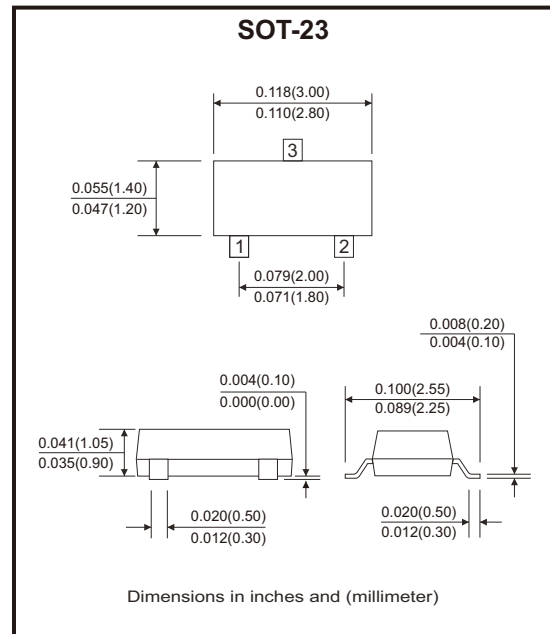
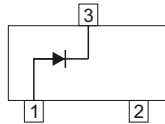
Features

- Epoxy meets UL-94 V-0 flammability rating.
- Moisture sensitivity Level 1.
- AEC-Q101 Qualified.

Mechanical data

- Case: SOT-23, molded plastic.
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102.

Circuit Diagram



Maximum Rating (at Ta=25°C unless otherwise noted)

| Parameter | Symbol | Value | Unit |
|--|------------------|-------------------------------------|------|
| Reverse voltage | V _R | 75 | V |
| Repetitive peak reverse voltage | V _{RRM} | 100 | V |
| Average forward current | I _{FAV} | 150 | mA |
| Repetitive peak forward current | I _{FRM} | 300 | mA |
| Peak forward surge current | I _{FSM} | 2 1 | A |
| | | Pulse width =1μs Pulse width =1s | |
| Power dissipation | P _{tot} | 350 | mW |
| Thermal resistance junction to ambient | R _{θJA} | 357 | K/W |
| Maximum junction temperature range | T _J | -55 to +150 | °C |
| Storage temperature range | T _{STG} | -55 to +150 | °C |

Electrical Characteristics (at Ta=25°C unless otherwise noted)

| Parameter | Symbol | Conditions | Value | Unit |
|-----------------------|-----------------|---|-------|------|
| Forward voltage | V _{F1} | I _F =1mA | 0.715 | V |
| | V _{F2} | I _F =10mA | 0.855 | |
| | V _{F3} | I _F =50mA | 1.0 | |
| | V _{F4} | I _F =150mA | 1.25 | |
| Reverse current | I _R | V _R =75V | 1.0 | μA |
| Breakdown voltage | V _R | I _R =10μA | 75 | V |
| Diode capacitance | C _D | V _R =V _F =0V, f=1MHz | 4 | pF |
| Reverse recovery time | t _{rr} | I _F =10mA, I _{rr} =0.1I _R , R _L =100Ω | 4 | nS |

Rating and Characteristic Curves (ABAS16-HF)

Fig.1 - P_D — T_A

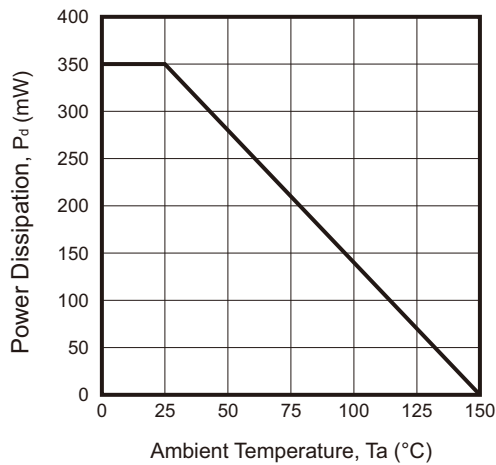


Fig.2 - C_d — V_R

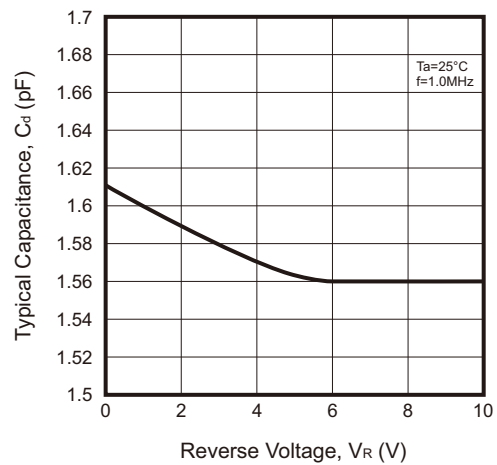


Fig.3 - Forward Characteristics

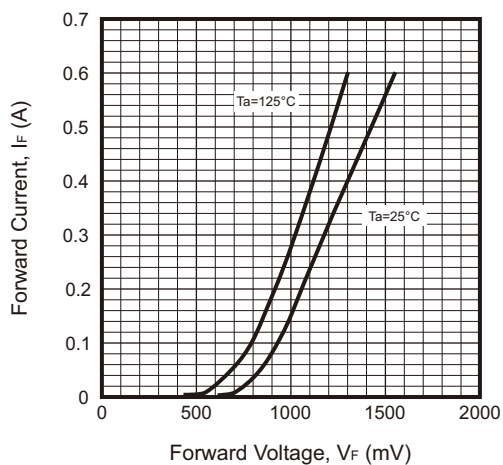
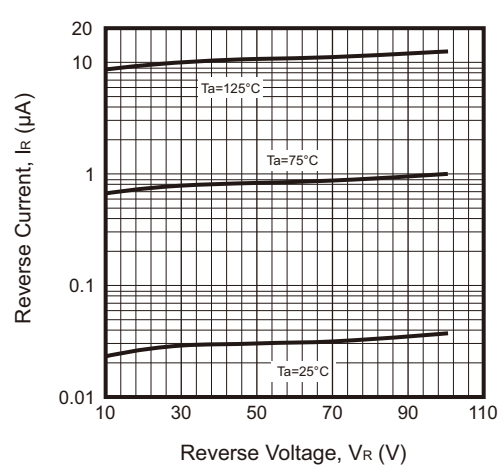


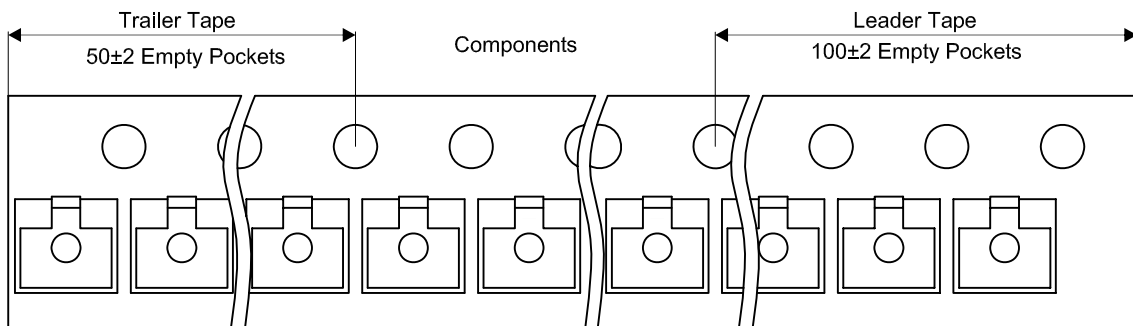
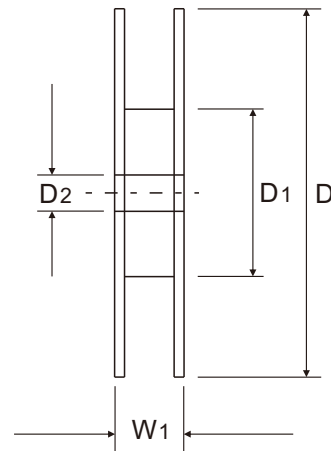
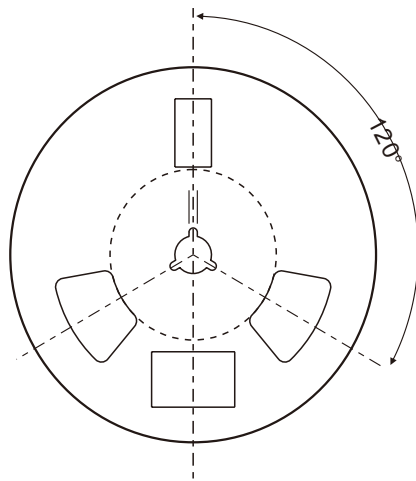
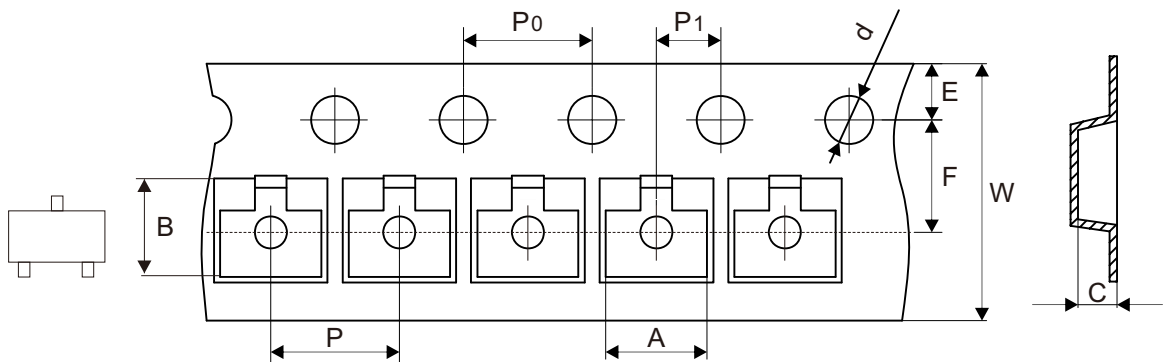
Fig.4 - Reverse Characteristics



Company reserves the right to improve product design, functions and reliability without notice.

REV:A

Reel Taping Specification



| SOT-23 | SYMBOL | A | B | C | d | D | D1 | D2 |
|--------|--------|---------------|---------------|---------------|--------------------------|---------------|---------------|---------------|
| | (mm) | 3.15 ± 0.10 | 2.77 ± 0.10 | 1.22 ± 0.10 | 1.50 + 0.10 - 0.00 | 178.00 ± 1.00 | 54.60 ± 1.00 | 13.30 ± 1.00 |
| | (inch) | 0.124 ± 0.004 | 0.109 ± 0.004 | 0.048 ± 0.004 | 0.059 + 0.004 - 0.000 | 7.008 ± 0.039 | 2.150 ± 0.039 | 0.524 ± 0.039 |

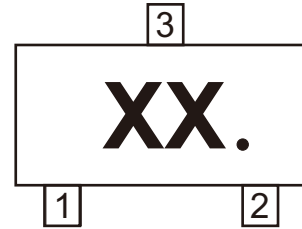
| SOT-23 | SYMBOL | E | F | P | P0 | P1 | W | W1 |
|--------|--------|---------------|---------------|---------------|---------------|---------------|--------------------------|---------------|
| | (mm) | 1.75 ± 0.10 | 3.50 ± 0.05 | 4.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.05 | 8.00 + 0.30 - 0.10 | 11.10 ± 0.20 |
| | (inch) | 0.069 ± 0.004 | 0.138 ± 0.002 | 0.157 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.002 | 0.315 + 0.012 - 0.004 | 0.437 ± 0.008 |

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REV:A

Marking Code

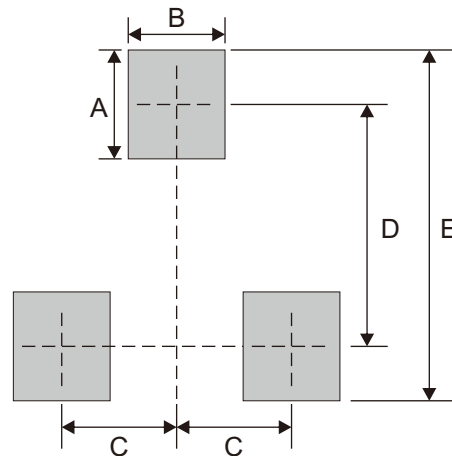
| Part Number | Marking Code |
|-------------|--------------|
| ABAS16-HF | A6. |



xx = Product type marking code

Suggested PAD Layout

| SIZE | SOT-23 | |
|------|--------|--------|
| | (mm) | (inch) |
| A | 0.90 | 0.035 |
| B | 0.80 | 0.031 |
| C | 0.95 | 0.037 |
| D | 2.00 | 0.079 |
| E | 2.90 | 0.114 |



Note: 1. The pad layout is for reference purposes only.

Standard Packaging

| Case Type | REEL PACK | |
|-----------|------------|------------------|
| | REEL (pcs) | Reel Size (inch) |
| SOT-23 | 3,000 | 7 |