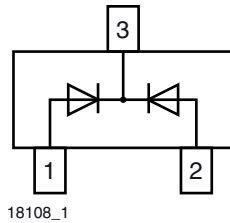
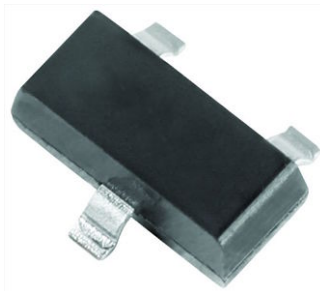




Dual Common Cathode Small Signal High Voltage Switching Diode



FEATURES

- Silicon epitaxial planar diode
- Fast switching dual common cathode diode, especially suited for applications requiring high voltage capability
- AEC-Q101 qualified
- Base P/N-G3 - green, commercial grade
- Material categorization:
For definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)

MECHANICAL DATA

Case: SOT-23

Weight: approx. 8.1 mg

Packaging codes/options:

18/10K per 13" reel (8 mm tape), 10K/box

08/3K per 7" reel (8 mm tape), 15K/box

| PARTS TABLE | | | | |
|-------------|----------------------------------|----------------------------|--------------|---------------|
| PART | ORDERING CODE | INTERNAL CONSTRUCTION | TYPE MARKING | REMARKS |
| GSD2004C-G | GSD2004C-G3-08 or GSD2004C-G3-18 | Dual diodes common cathode | DBK | Tape and reel |

| ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified) | | | | |
|---|-----------------------|------------------|-------|------|
| PARAMETER | TEST CONDITION | SYMBOL | VALUE | UNIT |
| Continuous reverse voltage | | V _R | 240 | V |
| Peak repetitive reverse voltage | | V _{RRM} | 300 | V |
| Forward current (continuous) | | I _F | 225 | mA |
| Peak repetitive forward current | | I _{FRM} | 625 | mA |
| Non-repetitive peak forward current | t _p = 1 μs | I _{FSM} | 4 | A |
| | t _p = 1 s | | 1 | A |
| Power dissipation ⁽¹⁾ | | P _{tot} | 350 | mW |

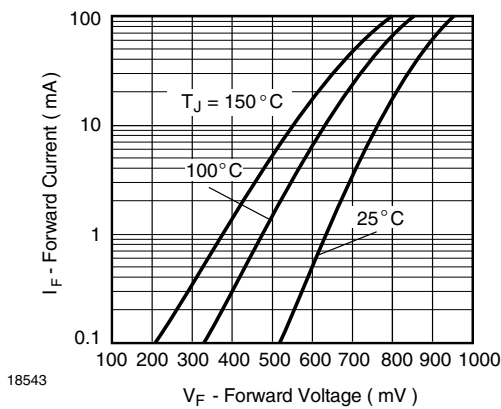
| THERMAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified) | | | | |
|--|----------------|-------------------|---------------|------|
| PARAMETER | TEST CONDITION | SYMBOL | VALUE | UNIT |
| Typical thermal resistance junction to ambient air ⁽¹⁾ | | R _{thJA} | 357 | °C/W |
| Junction temperature | | T _j | 150 | °C |
| Storage temperature range | | T _{stg} | - 65 to + 150 | °C |
| Operating temperature range | | T _{op} | - 55 to + 150 | °C |

Note

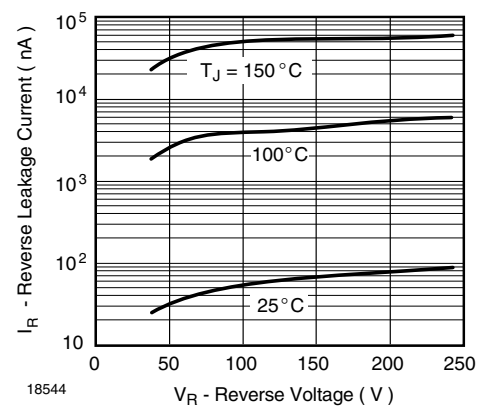
⁽¹⁾ Device on fiberglass substrate

| ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified) | | | | | | |
|---|--|-----------------|------|------|------|------|
| PARAMETER | TEST CONDITION | SYMBOL | MIN. | TYP. | MAX. | UNIT |
| Reverse breakdown voltage | I _R = 100 μA | V _{BR} | 300 | | | V |
| Leakage current | V _R = 240 V | I _R | | | 100 | nA |
| | V _R = 240 V, T _J = 150 °C | I _R | | | 100 | μA |
| Forward voltage | I _F = 20 mA | V _F | | 0.83 | 0.87 | V |
| | I _F = 100 mA | V _F | | | 1 | V |
| Diode capacitance | V _F = V _R = 0, f = 1 MHz | C _D | | | 5 | pF |
| Reverse recovery time | I _F = I _R = 30 mA, i _R = 3 mA, R _L = 100 Ω | t _{rr} | | | 50 | ns |

TYPICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)



18543



18544

Fig. 1 - Typical Instantaneous Forward Characteristics

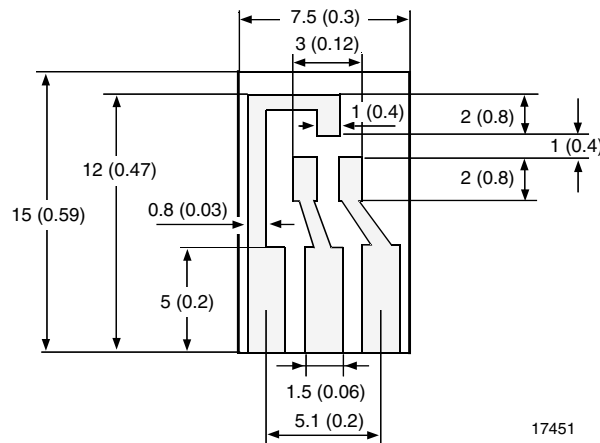
Fig. 2 - Typical Reverse Characteristics

Layout For RthJA test

Thickness:

Fiberglass 1.5 mm (0.059 in.)

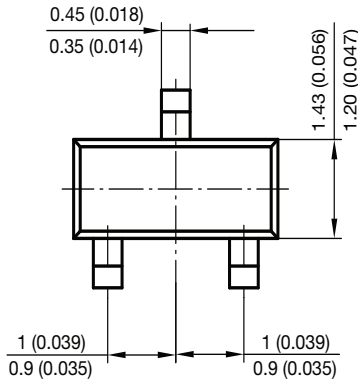
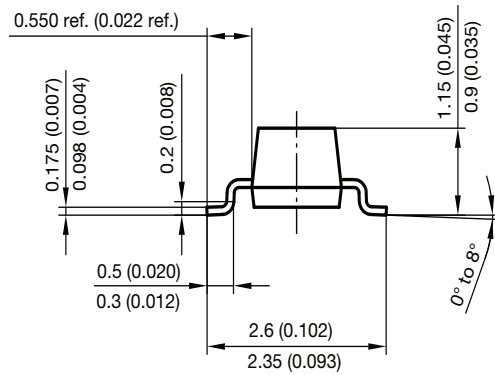
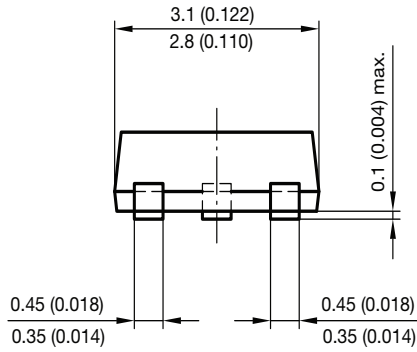
Copper leads 0.3 mm (0.012 in.)



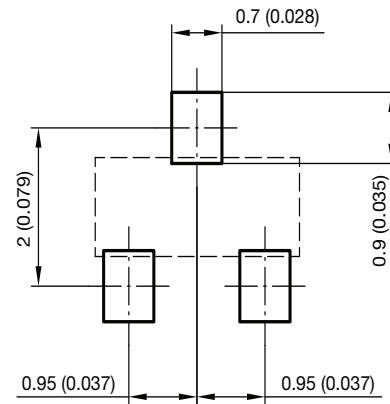
17451



PACKAGE DIMENSIONS in millimeters (inches): SOT-23



Foot print recommendation:



Document no.: 6.541-5014.01-4
Rev. 8 - Date: 23.Sept.2009
17418



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- Оперативные сроки поставки под заказ (от 5 рабочих дней);
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- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
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Телефон: 8 (812) 309-75-97 (многоканальный)

Факс: 8 (812) 320-03-32

Электронная почта: ocean@oceanchips.ru

Web: <http://oceanchips.ru/>

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А