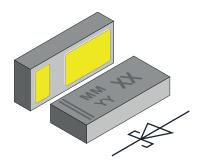
Vishay Semiconductors

Schottky Rectifier Surface-Mount Flipky[®] Gen 2



www.vishay.com

DESIGN SUPPORT TOOLS AVAILABLE

SHA



FEATURES

- Schottky diode for high-speed switching
- Very low dimensions: 1.4 mm x 0.6 mm x 0.29 mm
- 1 A forward current
- Low forward voltage drop (typ. 425 mV at 1 A)
- Low reverse current (< 20 µA at 10 V)
- Material categorization:
- for definitions of compliance please see www.vishay.com/doc?99912





HALOGEN FREE

GREEN

(5-2008)

| PARTS TABLE | | | | | | | |
|--------------|--------------------|--------------------------|-----------------|--------------|----------|--|------------------------------|
| PART | ORDERING CODE | CIRCUIT CONFIGURATION | PACKAGE NAME | TYPE CODE | WEIGHT | TAPED UNITS PER REEL (8 mm TAPE ON 7" REEL) | MINIMUM ORDER QUANTITY |
| VSKY10201406 | VSKY10201406-G4-08 | Single | CLP1406-2L | 52 | 0.570 mg | 5000 | 5000 |

| ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified) | | | | | |
|--|-----------------------|--------------------|-------|------|--|
| PARAMETER | TEST CONDITION | SYMBOL | VALUE | UNIT | |
| Maximum repetitive reverse voltage | | V _{RRM} | 20 | V | |
| Maximum average forward rectified current | | I _{F(AV)} | 1 | A | |
| Surge forward current | 8.3 ms half sine-wave | I _{FSM} | 18 | A | |
| Power dissipation | Footprint acc. fig. 4 | P _{tot} | 450 | mW | |

| THERMAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified) | | | | | |
|---|--|-------------------|-------------|------|--|
| PARAMETER | TEST CONDITION | SYMBOL | VALUE | UNIT | |
| Thermal resistance junction to ambient air | Acc. JEDEC [®] 51-3 footprint acc. fig. 4 | R _{thJA} | 280 | K/W | |
| Maximum operating junction temperature | | Tj | 150 | °C | |
| Storage temperature range | | T _{stg} | -65 to +150 | °C | |

| ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified) | | | | | |
|---|---------------------------------|----------------|-------|-------|------|
| PARAMETER | TEST CONDITION | SYMBOL | TYP. | MAX. | UNIT |
| aakaga aurrant | V _R = 10 V | I _R | | 20 | μA |
| Leakage current | V _R = 20 V | I _R | | 100 | μA |
| Forward voltage | I _F = 0.5 A | V _F | 0.375 | 0.400 | V |
| | I _F = 1 A | V _F | 0.425 | 0.450 | V |
| Diode capacitance | V _R = 0 V, f = 1 MHz | CD | 240 | | pF |

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Document Number: 85931



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RATINGS AND CHARACTERISTICS CURVES ($T_A = 25$ °C unless otherwise noted)

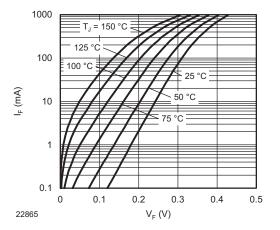


Fig. 1 - Typical Forward Current vs. Forward Voltage

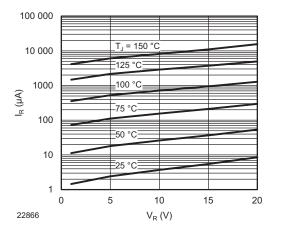


Fig. 2 - Typical Reverse Leakage Current vs. Reverse Voltage

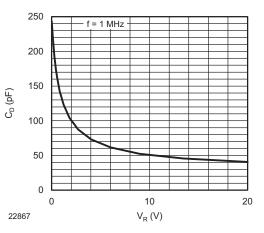


Fig. 3 - Typical Capacitance vs. Reverse Voltage

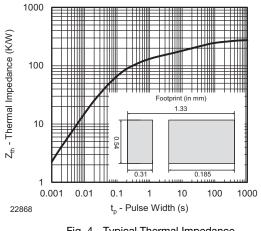
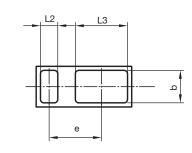


Fig. 4 - Typical Thermal Impedance

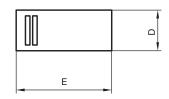




PACKAGE DIMENSIONS in millimeters: CLP1406-2L







Package = Chip Dimensions in mm

| | min. | max. | |
|----|------|------|--|
| А | 0.25 | 0.29 | |
| A1 | | 0.02 | |
| b | 0.46 | 0.50 | |
| D | 0.59 | 0.63 | |
| Е | 1.39 | 1.43 | |
| е | 0.77 | | |
| L2 | 0.23 | 0.27 | |
| L3 | 0.75 | 0.79 | |

Document no.:S8-V-3906.04-045 (4) Created - Date: 22. Jan. 2016 22878

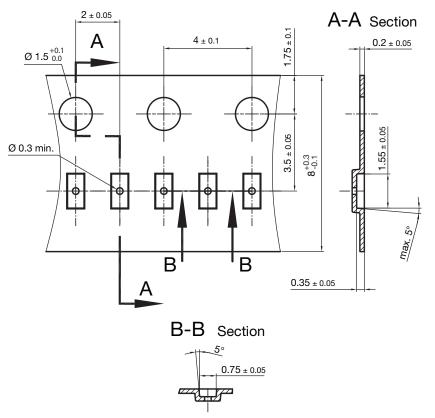
Footprint and soldering recommendation:

please see Application Note: www.vishay.com/doc?85917



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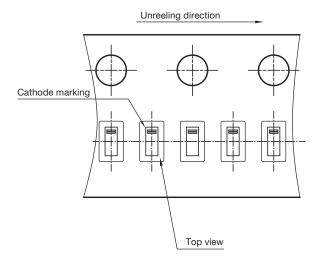
CARRIER TAPE in millimeters: CLP1406-2L



Cummulative tolerances of 10 sprocket holes is +/-0.2mm

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ORIENTATION IN CARRIER CLP1406-2L



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