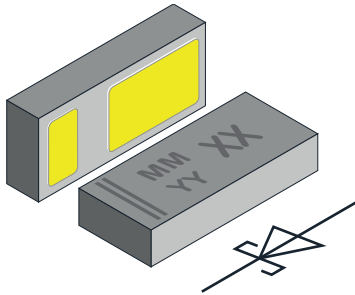


## Schottky Rectifier Surface-Mount Flipky® Gen 2



### 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  $\mu$ A at 10 V)
- Material categorization:  
for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**  
**GREEN**  
(5-2008)

### DESIGN SUPPORT TOOLS AVAILABLE



| 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 ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , 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 ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , 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   |  | $T_j$      | 150         | $^{\circ}\text{C}$ |
| Storage temperature range  |  | $T_{stg}$  | -65 to +150 | $^{\circ}\text{C}$ |

| ELECTRICAL CHARACTERISTICS ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified) |   |        |       |       |               |
|---|---|--------|-------|-------|---------------|
| PARAMETER   | TEST CONDITION                          | SYMBOL | TYP.  | MAX.  | UNIT          |
| Leakage current   | $V_R = 10\text{ V}$                     | $I_R$  |       | 20    | $\mu\text{A}$ |
|   | $V_R = 20\text{ V}$                     | $I_R$  |       | 100   | $\mu\text{A}$ |
| Forward voltage   | $I_F = 0.5\text{ A}$                    | $V_F$  | 0.375 | 0.400 | V             |
|   | $I_F = 1\text{ A}$                      | $V_F$  | 0.425 | 0.450 | V             |
| Diode capacitance   | $V_R = 0\text{ V}$ , $f = 1\text{ MHz}$ | $C_D$  | 240   |       | pF            |

**RATINGS AND CHARACTERISTICS CURVES** ( $T_A = 25\text{ }^\circ\text{C}$  unless otherwise noted)

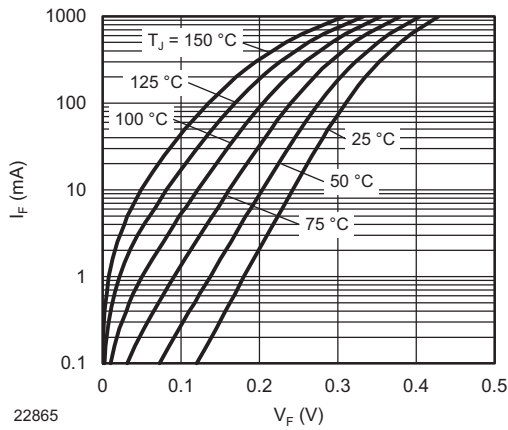


Fig. 1 - Typical Forward Current vs. Forward Voltage

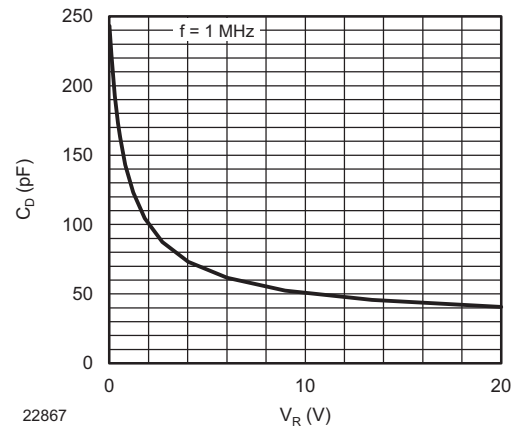


Fig. 3 - Typical Capacitance vs. Reverse Voltage

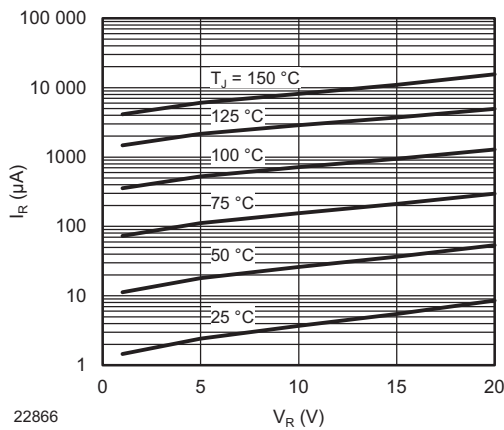


Fig. 2 - Typical Reverse Leakage Current vs. Reverse Voltage

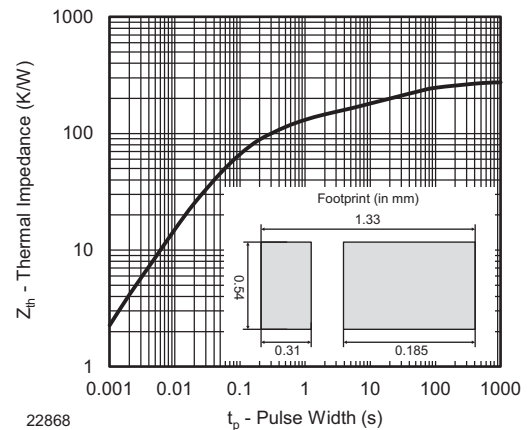
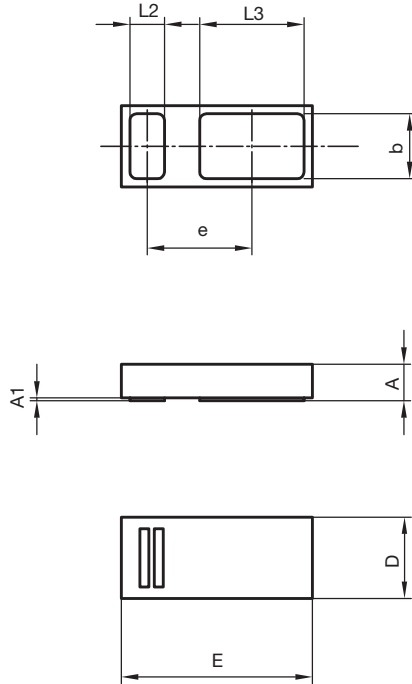


Fig. 4 - Typical Thermal Impedance



PACKAGE DIMENSIONS in millimeters: **CLP1406-2L**

Package = Chip Dimensions in mm



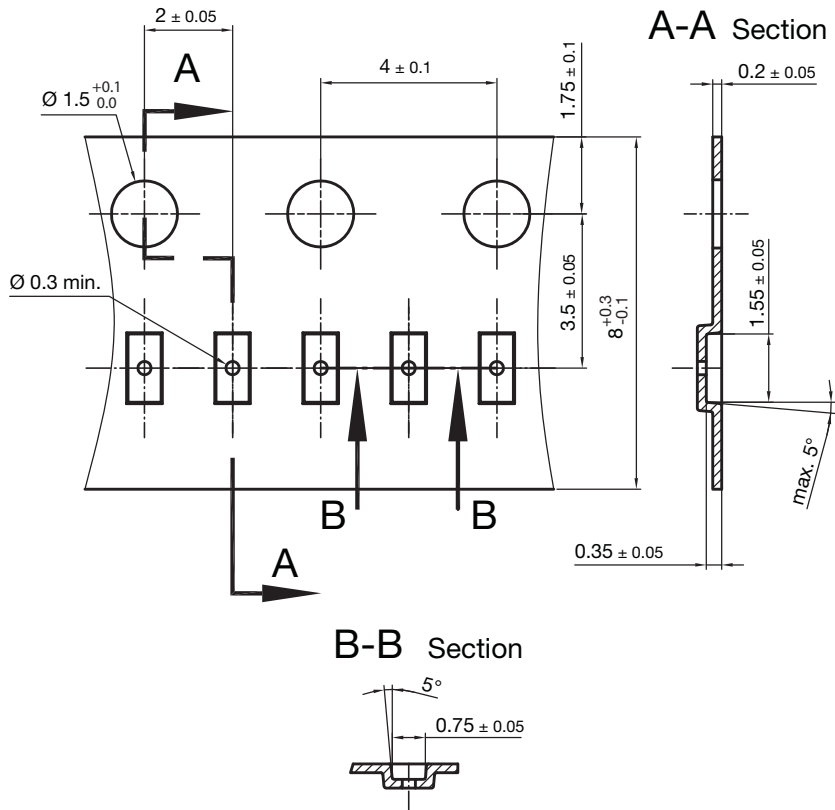
|    | min. | max. |
|----|------|------|
| A  | 0.25 | 0.29 |
| A1 |      | 0.02 |
| b  | 0.46 | 0.50 |
| D  | 0.59 | 0.63 |
| E  | 1.39 | 1.43 |
| e  | 0.77 |      |
| L2 | 0.23 | 0.27 |
| L3 | 0.75 | 0.79 |

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**Footprint and soldering recommendation:**  
please see Application Note: [www.vishay.com/doc?85917](http://www.vishay.com/doc?85917)



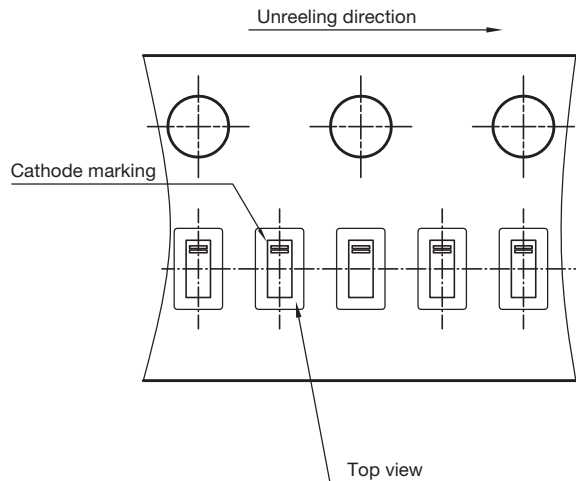
CARRIER TAPE in millimeters: CLP1406-2L



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

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22879

ORIENTATION IN CARRIER CLP1406-2L



Document no. S8-V-3906.04-047 (4)  
Created - Date: 25. Jan. 2016  
22880



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