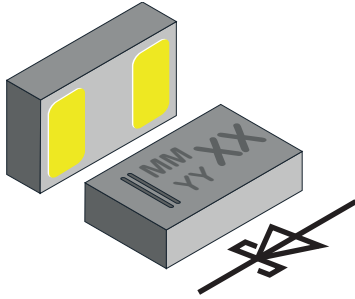


Schottky Rectifier Surface-Mount FlipKY[®] Gen 2



FEATURES

- Schottky diode for high-speed switching
- Very low dimensions:
1.0 mm x 0.6 mm x 0.29 mm
- 0.5 A forward current
- Low forward voltage drop (typ. 405 mV at 0.5 A)
- Low reverse current (< 15 μ A at 10 V)
- Material categorization:
for definitions of compliance please see 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 |
| VSKY05301006 | VSKY05301006-G4-08 | Single | CLP1006-2L | 3A | 0.400 mg | 10 000 | 10 000 |

| 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} | 30 | V | |
| Maximum average forward rectified current | | $I_{F(AV)}$ | 0.5 | A | |
| Surge forward current | 8.3 ms half sine-wave | I_{FSM} | 12 | 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 | - | 15 | μA | |
| | $V_R = 30\text{ V}$ | I_R | - | 75 | μA | |
| Forward voltage | $I_F = 100\text{ mA}$ | V_F | 0.335 | 0.360 | V | |
| | $I_F = 0.5\text{ A}$ | V_F | 0.405 | 0.430 | V | |
| Diode capacitance | $V_R = 0\text{ V}$, $f = 1\text{ MHz}$ | C_D | 140 | - | pF | |

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

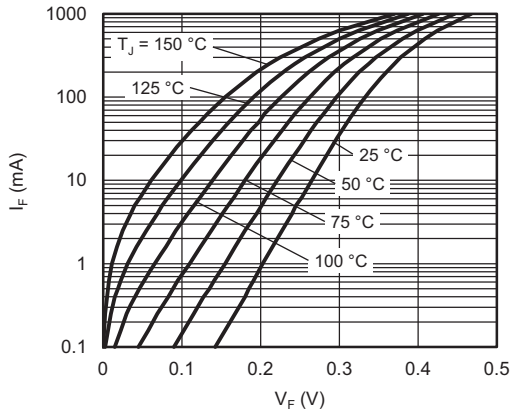


Fig. 1 - Typical Forward Current vs. Forward Voltage

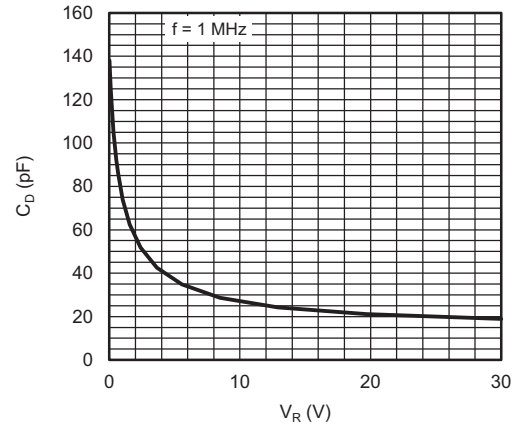


Fig. 3 - Typical Capacitance vs. Reverse Voltage

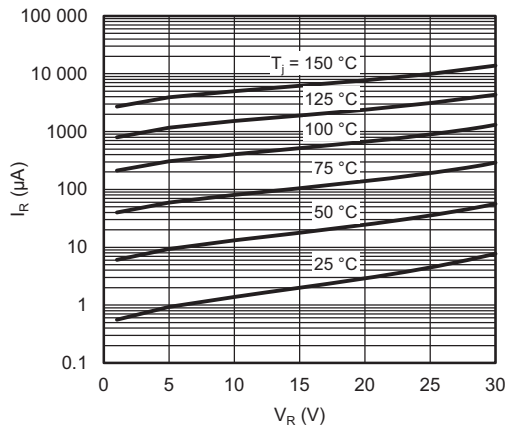


Fig. 2 - Typical Reverse Leakage Current vs. Reverse Voltage

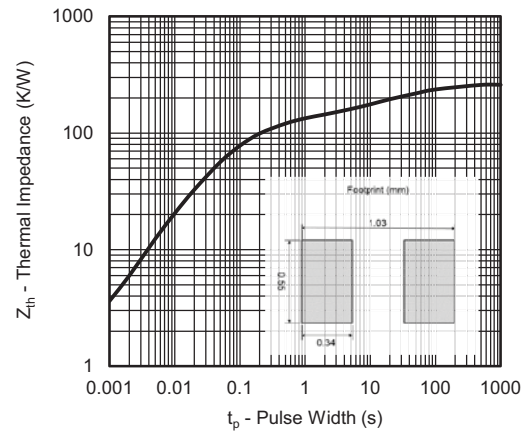
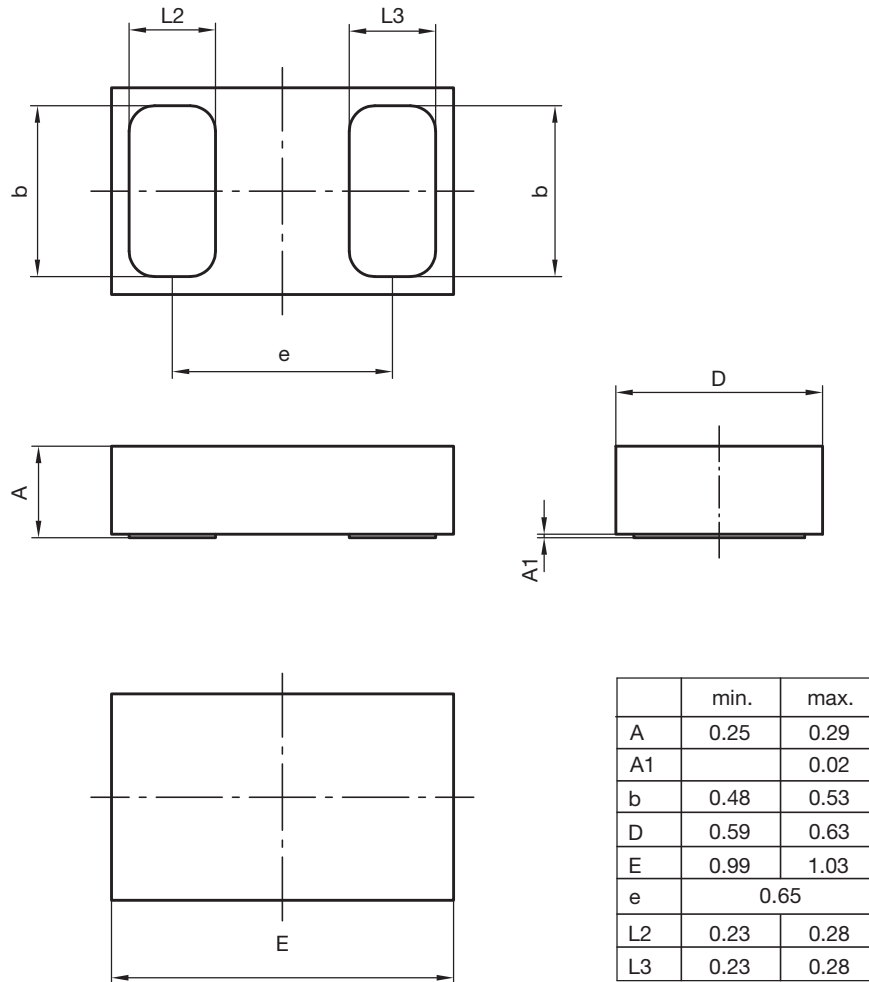


Fig. 4 - Typical Thermal Impedance vs. Time

PACKAGE DIMENSIONS in millimeters: **CLP1006-2L**



Document no.:S8-V-3906.04-039 (4)

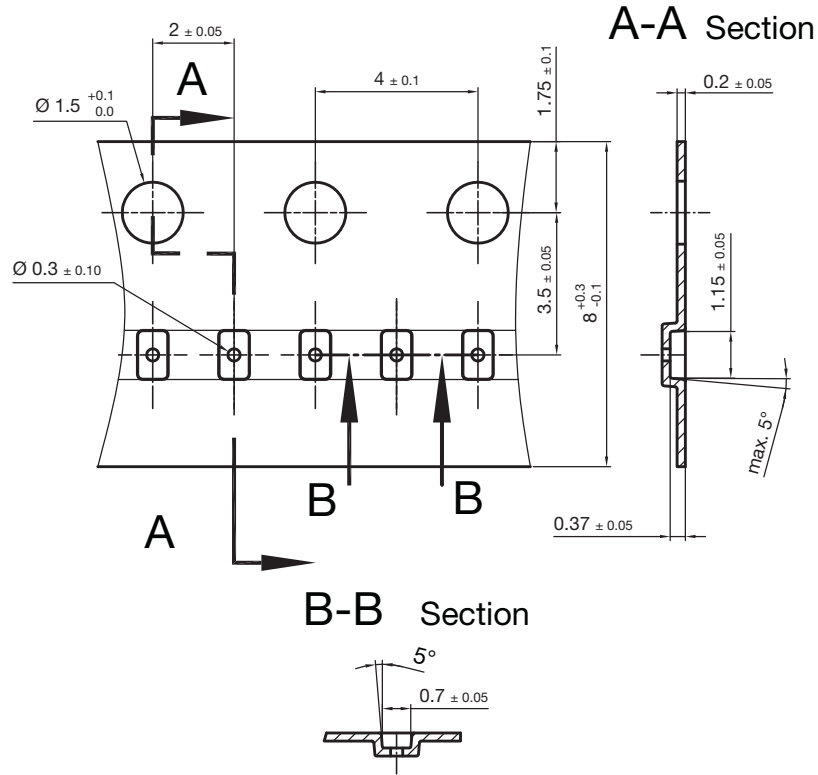
Created - Date: 02. April 2015

22784

Footprint and soldering recommendation:

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

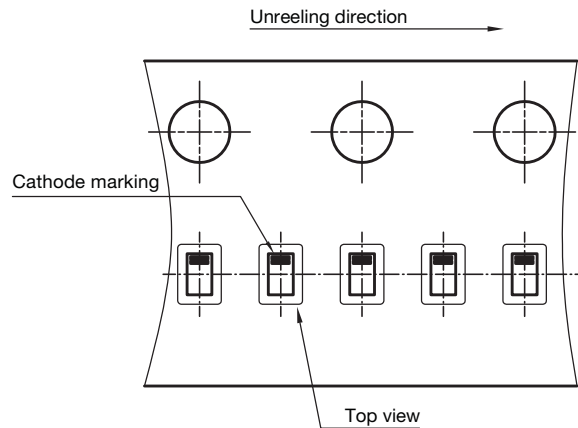
CARRIER TAPE in millimeters: **CLP1006-2L**



Cummulative tolerances of 10 sprocket holes is ± 0.2 mm

Carrier tape CLP1006-2L
 S8-V-3906.04-051 (4)
 03.02.2016
 22937

ORIENTATION IN CARRIER CLP1006-2L



Orientation in Carrier CLP1006-2L (VSKY)
 S8-V-3906.04-052 (4)
 03.02.2016
 22938



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