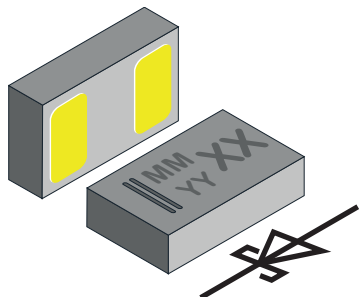


# Schottky Rectifier Surface-Mount FlipKY® Gen 2



## 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. 425 mV at 0.5 A)
- Low reverse current (< 15 µA 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
VSKY05401006	VSKY05401006-G4-08	Single	CLP1006-2L	4A	0.400 mg	10 000	10 000

## ABSOLUTE MAXIMUM RATINGS (T<sub>amb</sub> = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Maximum repetitive reverse voltage		V <sub>RRM</sub>	40	V
Maximum average forward rectified current		I <sub>F(AV)</sub>	0.5	A
Surge forward current	8.3 ms half sine-wave	I <sub>FSM</sub>	12	A
Power dissipation	Footprint acc. fig. 4	P <sub>tot</sub>	450	mW

## THERMAL CHARACTERISTICS (T<sub>amb</sub> = 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 <sub>thJA</sub>	280	K/W
Maximum operating junction temperature		T <sub>j</sub>	150	°C
Storage temperature range		T <sub>stg</sub>	-65 to +150	°C

## ELECTRICAL CHARACTERISTICS (T<sub>amb</sub> = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	TYP.	MAX.	UNIT
Leakage current	V <sub>R</sub> = 10 V	I <sub>R</sub>	-	15	µA
	V <sub>R</sub> = 40 V	I <sub>R</sub>	-	75	µA
Forward voltage	I <sub>F</sub> = 100 mA	V <sub>F</sub>	0.330	0.360	V
	I <sub>F</sub> = 0.5 A	V <sub>F</sub>	0.425	0.460	V
Diode capacitance	V <sub>R</sub> = 0 V, f = 1 MHz	C <sub>D</sub>	140	-	pF

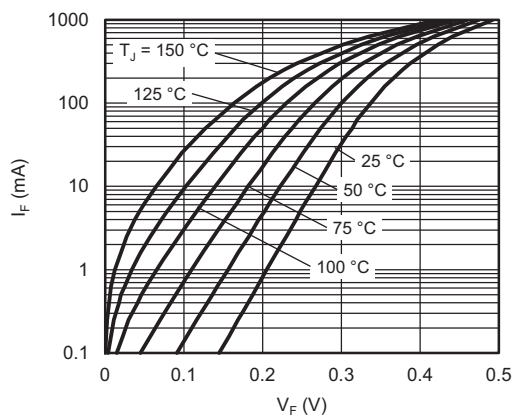
**RATINGS AND CHARACTERISTICS CURVES** ( $T_A = 25\text{ }^{\circ}\text{C}$  unless otherwise noted)


Fig. 1 - Typical Forward Current vs. Forward Voltage

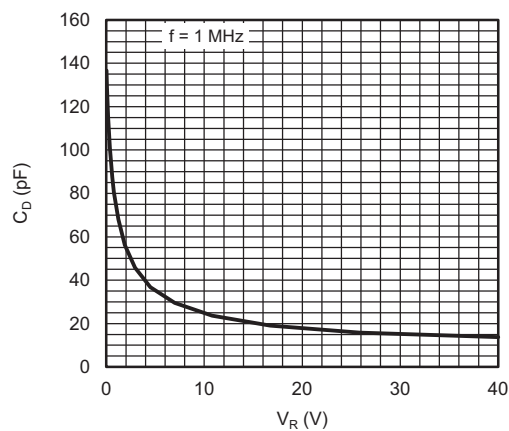


Fig. 3 - Typical Capacitance vs. Reverse Voltage

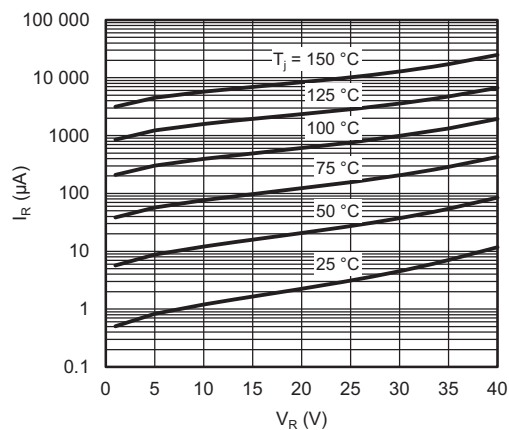


Fig. 2 - Typical Reverse Leakage Current vs. Reverse Voltage

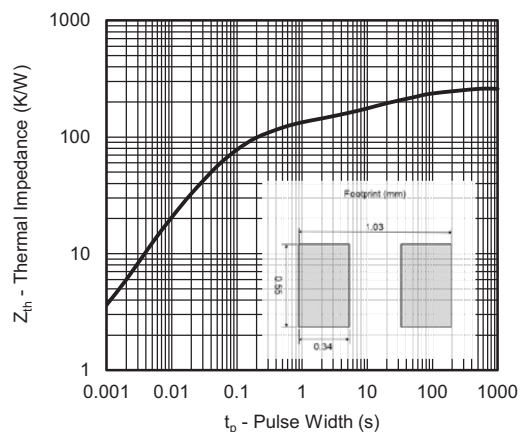
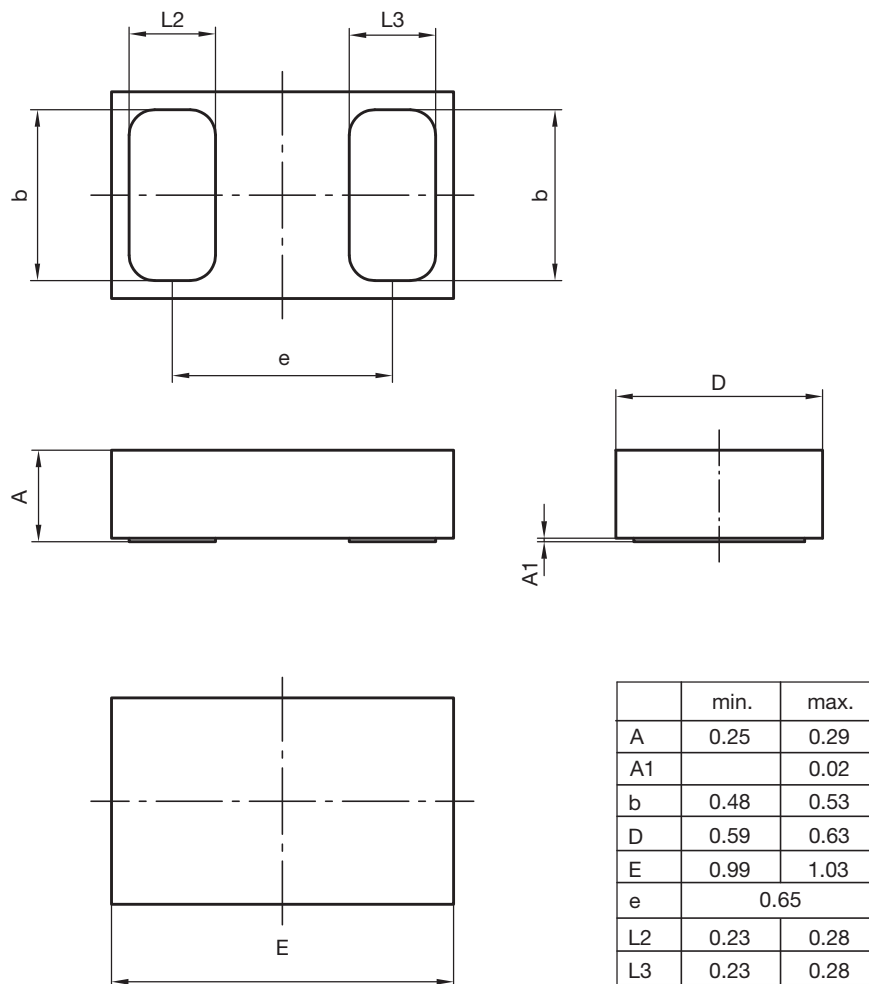


Fig. 4 - Typical Thermal Impedance vs. Time

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


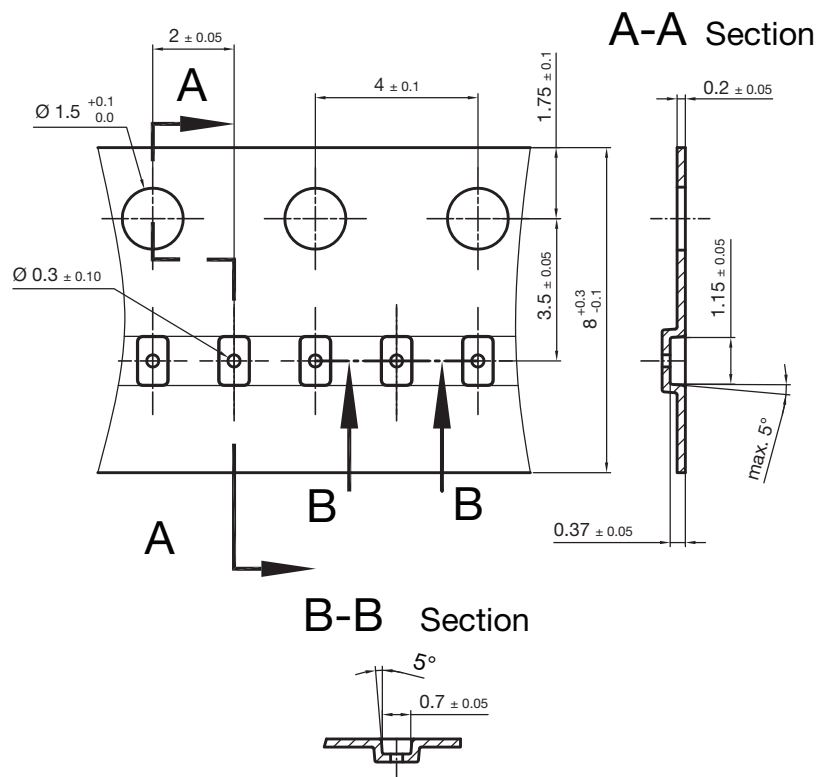
Document no.:S8-V-3906.04-039 (4)

Created - Date: 02. April 2015

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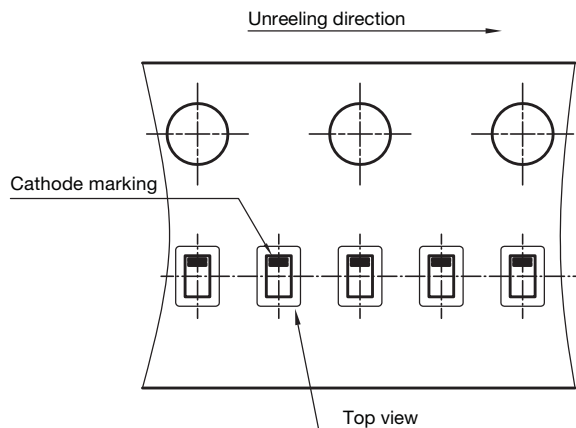
**Footprint and soldering recommendation:**

please see Application Note: [www.vishay.com/doc?85917](http://www.vishay.com/doc?85917)

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


Cummulative tolerances of 10 sprocket holes is  $\pm 0.2$  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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