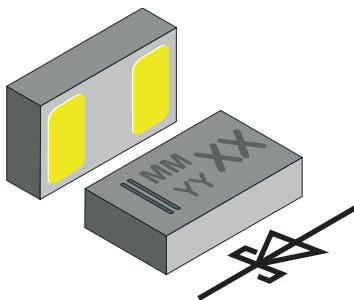


## Schottky Rectifier Surface-Mount FlipKY® Gen 2



### 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  $\mu$ 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**  
(I5-2008)

### DESIGN SUPPORT TOOLS AVAILABLE



**SPICE**  
Models



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

### ELECTRICAL CHARACTERISTICS ( $T_{amb} = 25^\circ\text{C}$ , unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	TYP.	MAX.	UNIT
Leakage current	$V_R = 10 \text{ V}$	$I_R$	-	15	$\mu\text{A}$
	$V_R = 30 \text{ V}$	$I_R$	-	75	$\mu\text{A}$
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

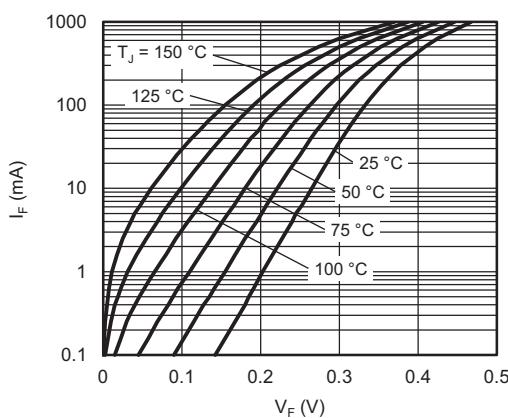
**RATINGS AND CHARACTERISTICS CURVES** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)


Fig. 1 - Typical Forward Current vs. Forward Voltage

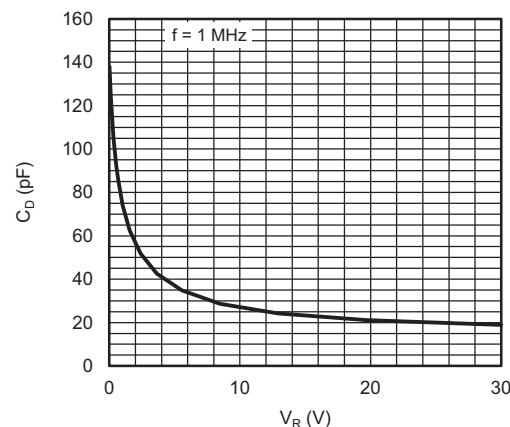


Fig. 3 - Typical Capacitance vs. Reverse Voltage

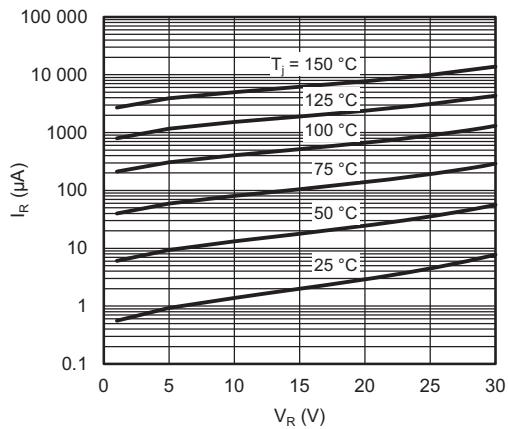


Fig. 2 - Typical Reverse Leakage Current vs. Reverse Voltage

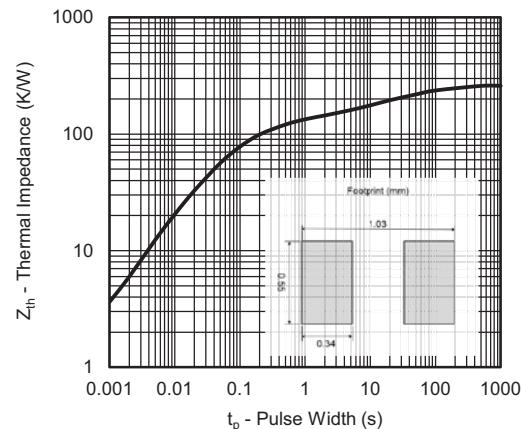
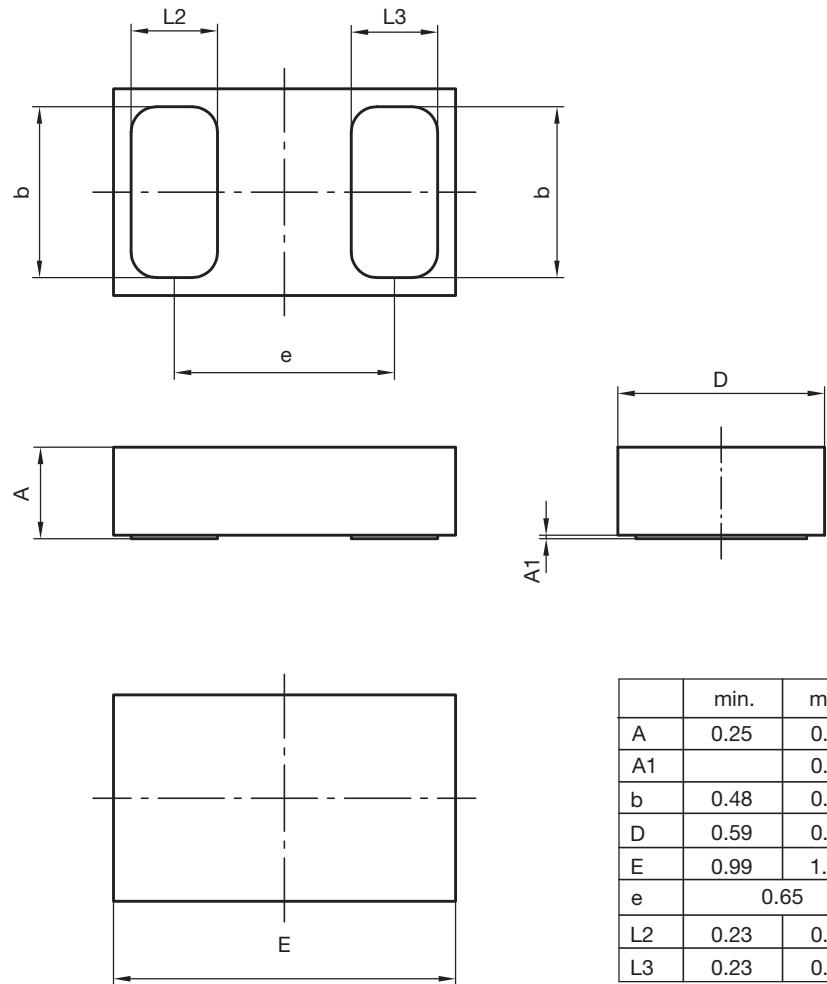


Fig. 4 - Typical Thermal Impedance vs. Time

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


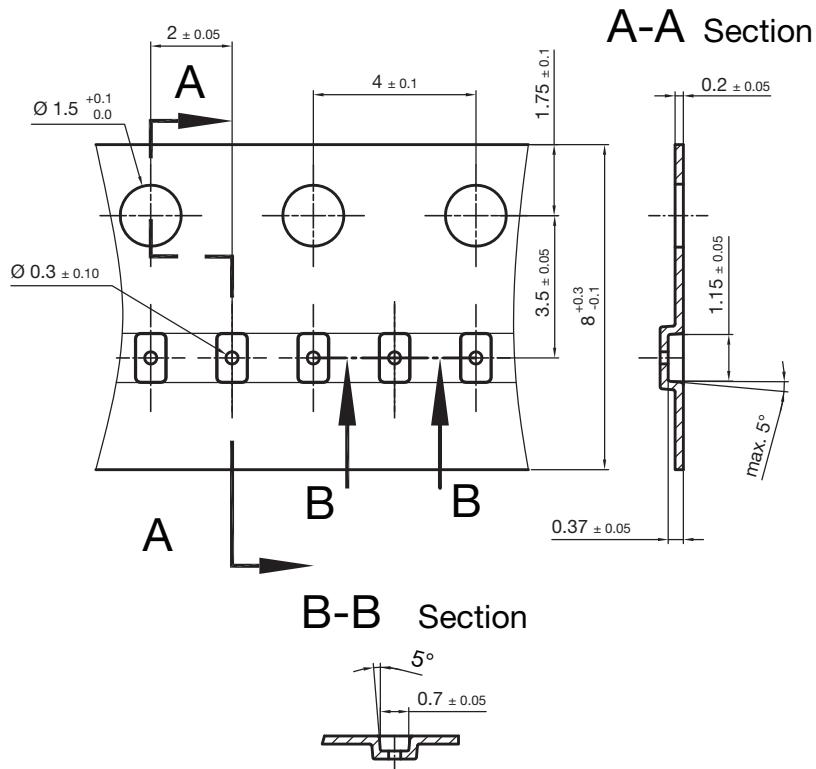
Document no.:S8-V-3906.04-039 (4)

Created - Date: 02. April 2015

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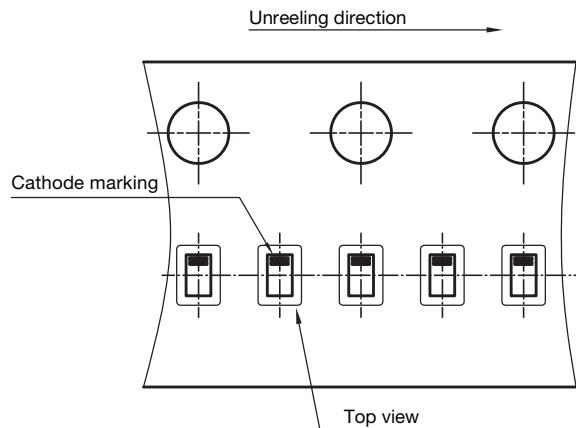
**Footprint and soldering recommendation:**

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 +/-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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