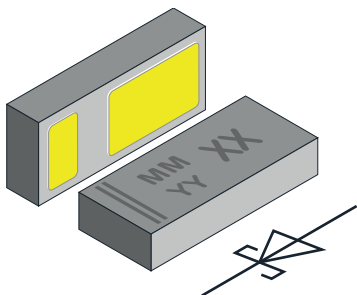


# Schottky Rectifier Surface-Mount Flipky® Gen 2



## 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. 440 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](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
VSKY10301406	VSKY10301406-G4-08	Single	CLP1406-2L	53	0.570 mg	5000	5000

## 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>	30	V
Maximum average forward rectified current		I <sub>F(AV)</sub>	1	A
Surge forward current	8.3 ms half sine-wave	I <sub>FSM</sub>	18	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>	-	20	µA
	V <sub>R</sub> = 30 V	I <sub>R</sub>	-	100	µA
Forward voltage	I <sub>F</sub> = 0.5 A	V <sub>F</sub>	0.380	0.420	V
	I <sub>F</sub> = 1 A	V <sub>F</sub>	0.440	0.470	V
Diode capacitance	V <sub>R</sub> = 0 V, f = 1 MHz	C <sub>D</sub>	230	-	pF

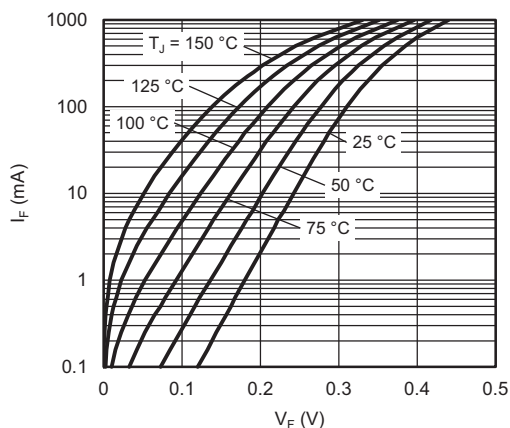
**RATINGS AND CHARACTERISTICS CURVES** ( $T_A = 25\text{ }^{\circ}\text{C}$  unless otherwise noted)


Fig. 1 - Typical Forward Current vs. Forward Voltage

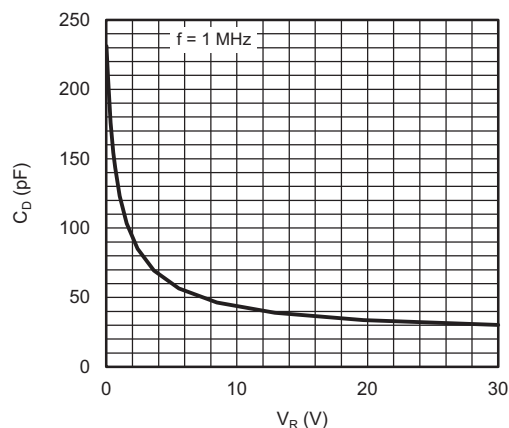


Fig. 3 - Typical Capacitance vs. Reverse Voltage

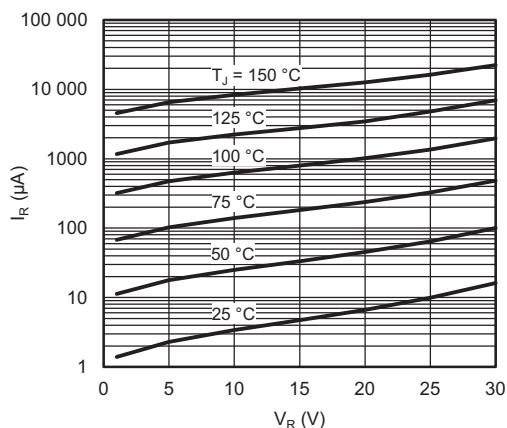


Fig. 2 - Typical Reverse Leakage Current vs. Reverse Voltage

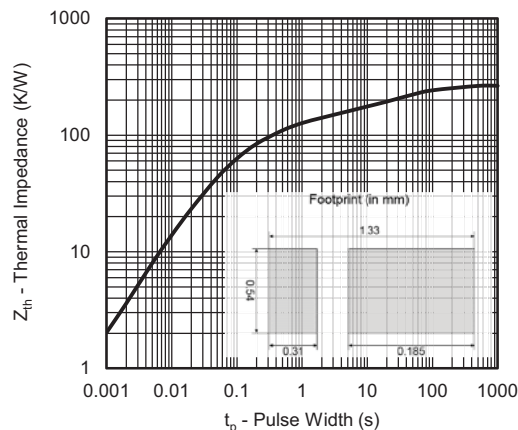
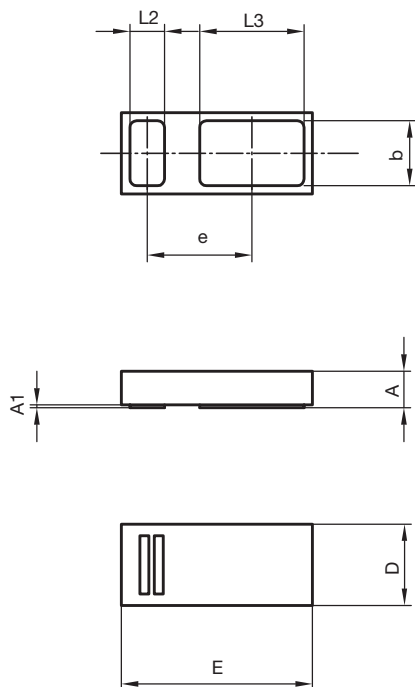


Fig. 4 - Typical Thermal Impedance vs. Time



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

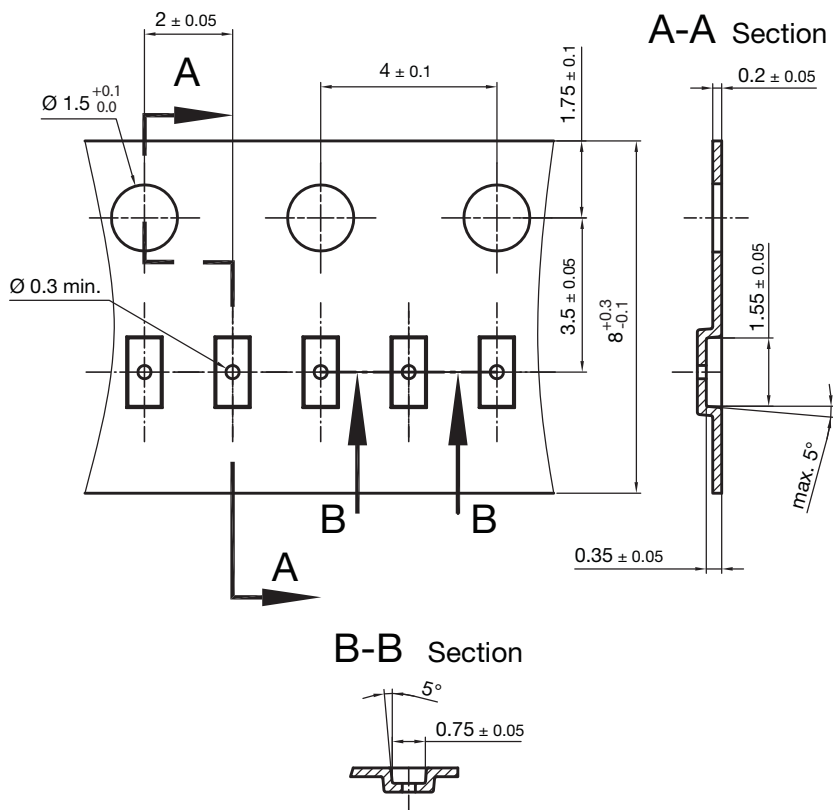
Package = Chip Dimensions in mm



	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

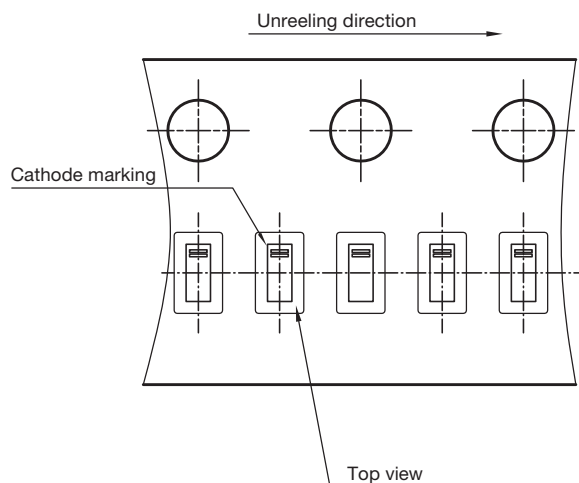
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Created - Date: 22. Jan. 2016  
22878

**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  $\pm 0.2\text{mm}$

Document no. S8-V-3906.04-046 (4)  
Created - Date: 22. Jan. 2016  
22879

**ORIENTATION IN CARRIER CLP1406-2L**


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



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