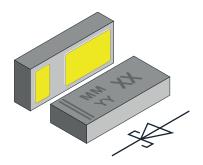
**Vishay Semiconductors** 

# Schottky Rectifier Surface-Mount Flipky<sup>®</sup> Gen 2



www.vishay.com

# **DESIGN SUPPORT TOOLS AVAILABLE**

SHA



### **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)</li>
- Material categorization:
- for definitions of compliance please see www.vishay.com/doc?99912





FREE

**GREEN** 

<u>(5-2008)</u>

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	А
Surge forward current	8.3 ms half sine-wave	I <sub>FSM</sub>	18	А
Power dissipation	Footprint acc. fig. 4	P <sub>tot</sub>	450	mW

<b>THERMAL CHARACTERISTICS</b> (T <sub>amb</sub> = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT	
Thermal resistance junction to ambient air	Acc. JEDEC <sup>®</sup> 51-3 footprint acc. fig. 4	R <sub>thJA</sub>	280	K/W	
Maximum operating junction temperature		Тj	150	°C	
Storage temperature range		T <sub>stg</sub>	-65 to +150	°C	

<b>ELECTRICAL CHARACTERISTICS</b> ( $T_{amb}$ = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL	TYP.	MAX.	UNIT
	V <sub>R</sub> = 10 V	I <sub>R</sub>	-	20	μA
Leakage current	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	CD	230	-	pF

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## **RATINGS AND CHARACTERISTICS CURVES** ( $T_A = 25$ °C unless otherwise noted)

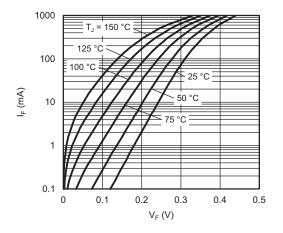


Fig. 1 - Typical Forward Current vs. Forward Voltage

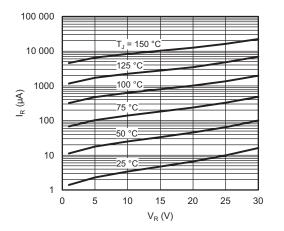


Fig. 2 - Typical Reverse Leakage Current vs. Reverse Voltage

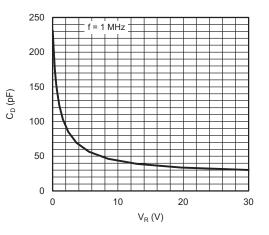


Fig. 3 - Typical Capacitance vs. Reverse Voltage

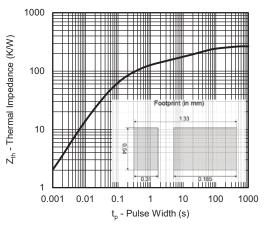
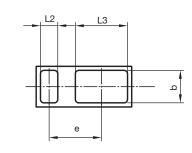


Fig. 4 - Typical Thermal Impedance vs. Time

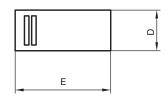


### PACKAGE DIMENSIONS in millimeters: CLP1406-2L

www.vishay.com







Package = Chip Dimensions in mm

	min.	max.	
А	0.25	0.29	
A1		0.02	
b	0.46	0.50	
D	0.59	0.63	
Е	1.39	1.43	
е	0.77		
L2	0.23	0.27	
L3	0.75	0.79	

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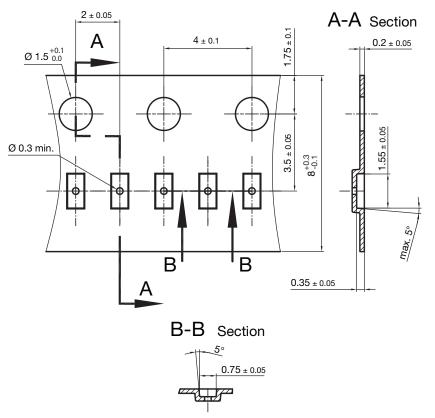
#### Footprint and soldering recommendation:

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



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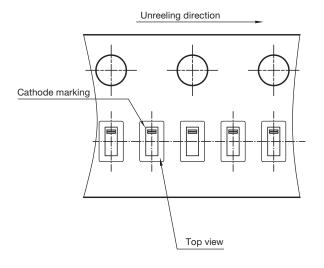
#### CARRIER TAPE in millimeters: CLP1406-2L



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

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#### **ORIENTATION IN CARRIER CLP1406-2L**



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