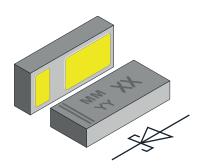


# Schottky Rectifier Surface-Mount Flipky® Gen 2



#### **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. 425 mV at 1 A)
- Low reverse current (< 20 µA at 10 V)
- Material categorization: for definitions of compliance please see www.vishav.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
VSKY10201406	VSKY10201406-G4-08	Single	CLP1406-2L	52	0.570 mg	5000	5000

<b>ABSOLUTE MAXIMUM RATINGS</b> (T <sub>amb</sub> = 25 °C, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Maximum repetitive reverse voltage		$V_{RRM}$	20	V
Maximum average forward rectified current		I <sub>F(AV)</sub>	1	Α
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

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		Tj	150	°C
Storage temperature range		T <sub>stg</sub>	-65 to +150	°C

<b>ELECTRICAL CHARACTERISTICS</b> (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	μΑ
Leakage current	V <sub>R</sub> = 20 V	I <sub>R</sub>		100	μΑ
Converd valtage	I <sub>F</sub> = 0.5 A	$V_{F}$	0.375	0.400	V
Forward voltage	I <sub>F</sub> = 1 A	V <sub>F</sub>	0.425	0.450	V
Diode capacitance	V <sub>R</sub> = 0 V, f = 1 MHz	C <sub>D</sub>	240		pF



### **RATINGS AND CHARACTERISTICS CURVES** (T<sub>A</sub> = 25 °C unless otherwise noted)

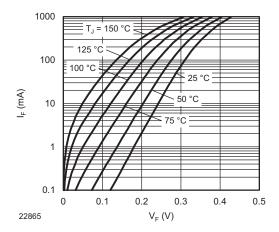
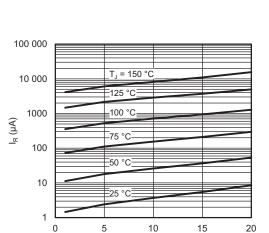


Fig. 1 - Typical Forward Current vs. Forward Voltage



 $V_{R}(V)$ Fig. 2 - Typical Reverse Leakage Current vs. Reverse Voltage

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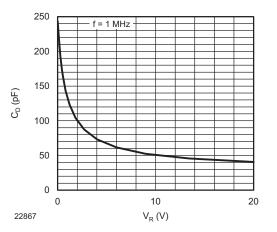


Fig. 3 - Typical Capacitance vs. Reverse Voltage

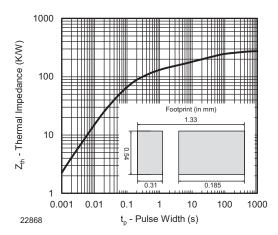
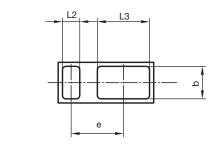


Fig. 4 - Typical Thermal Impedance



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







	D
E	

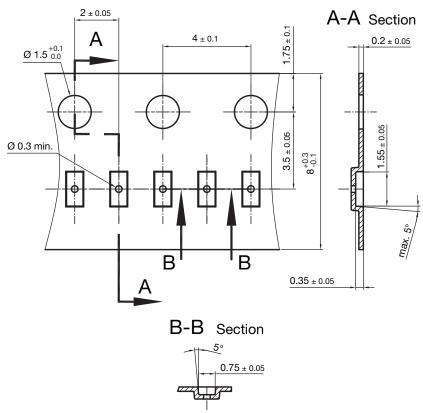
	min.	max.	
Α	0.25	0.29	
A1		0.02	
b	0.46	0.50	
D	0.59	0.63	
Е	1.39	1.43	
е	0.77		
L2	0.23	0.27	
L3	0.75	0.79	

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#### Footprint and soldering recommendation:

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

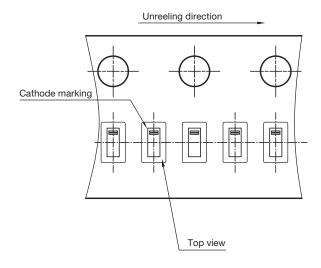
#### **CARRIER TAPE** in millimeters: **CLP1406-2L**



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

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



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