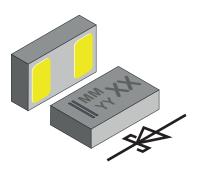


# Schottky Rectifier Surface-Mount FlipKY® Gen 2



#### **DESIGN SUPPORT TOOLS AVAILABLE**









#### **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





ROHS COMPLIANT HALOGEN FREE

GREEN (5-2008)

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

<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 <sub>RRM</sub>	40	V
Maximum average forward rectified current		I <sub>F(AV)</sub>	0.5	А
Surge forward current	8.3 ms half sine-wave	I <sub>FSM</sub>	12	Α
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 <sup>®</sup> 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

<b>ELECTRICAL CHARACTERISTICS</b> (T <sub>amb</sub> = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL	TYP.	MAX.	UNIT
Lookogo gurrent	V <sub>R</sub> = 10 V	I <sub>R</sub>	-	15	μA
Leakage current	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** ( $T_A = 25$ °C unless otherwise noted)

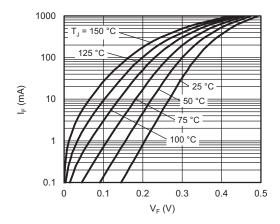


Fig. 1 - Typical Forward Current vs. Forward Voltage

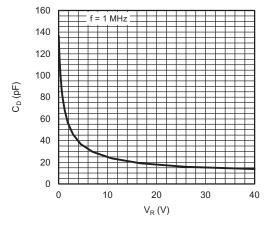


Fig. 3 - Typical Capacitance vs. Reverse Voltage

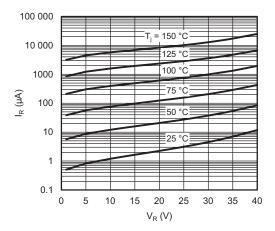


Fig. 2 - Typical Reverse Leakage Current vs. Reverse Voltage

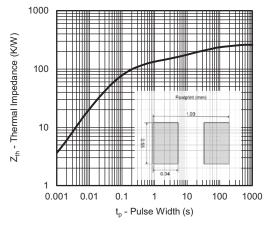
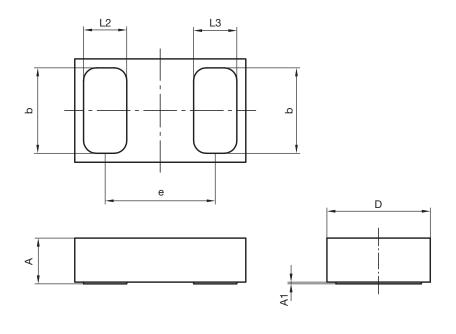
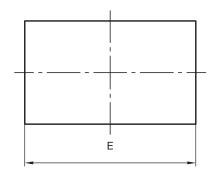


Fig. 4 - Typical Thermal Impedance vs. Time



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





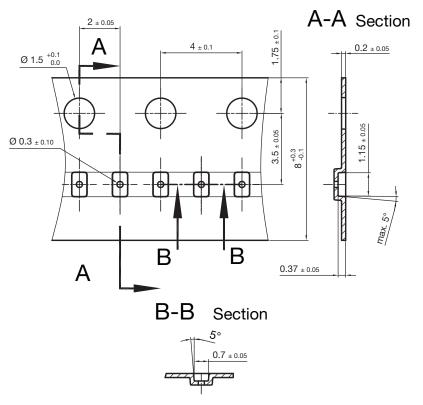
	min.	max.	
Α	0.25	0.29	
A1		0.02	
b	0.48	0.53	
D	0.59	0.63	
Е	0.99	1.03	
е	0.65		
L2	0.23	0.28	
L3	0.23	0.28	

Document no.:S8-V-3906.04-039 (4) Created - Date: 02. April 2015 22784

#### Footprint and soldering recommendation:

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

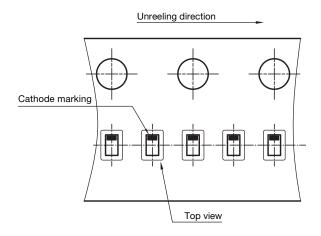
#### **CARRIER TAPE** in millimeters: **CLP1006-2L**



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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