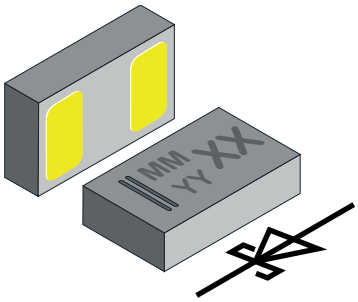
Schottky Rectifier Surface-Mount FlipKY® Gen 2



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. 400 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

Pb-free

e4

RoHS COMPLIANT

HALOGEN FREE GREEN (5-2008)

DESIGN SUPPORT TOOLS

click logo to get started

3D Models 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
VSKY05201006	VSKY05201006-G4-08	Single	CLP1006-2L	2A	0.400 mg	10 000	10 000

ABSOLUTE MAXIMUM RATINGS (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Maximum repetitive reverse voltage		V_{RRM}	20	V
Maximum average forward rectified current		$I_{F(AV)}$	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 °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 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	TYP.	MAX.	UNIT
Leakage current	V_R = 10 V	I_R	-	15	µA
	V_R = 20 V	I_R	-	75	µA
Forward voltage	I_F = 100 mA	V_F	0.335	0.345	V
	I_F = 0.5 A	V_F	0.400	0.430	V
Diode capacitance	V_R = 0 V, f = 1 MHz	C_D	150	-	pF

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

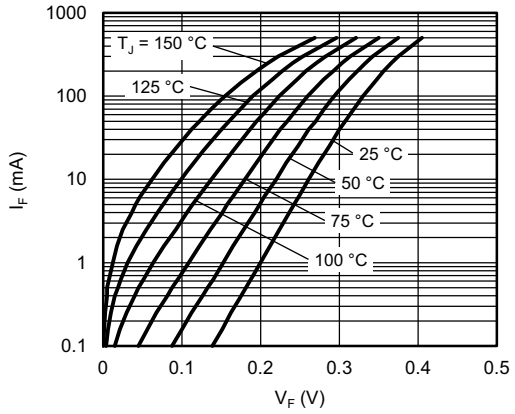


Fig. 1 - Typical Forward Current vs. Forward Voltage

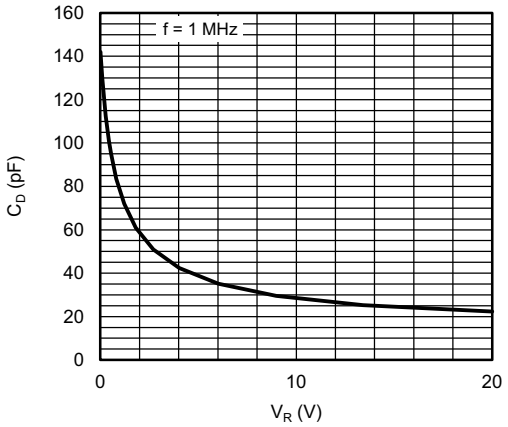


Fig. 3 - Typical Capacitance vs. Reverse Voltage

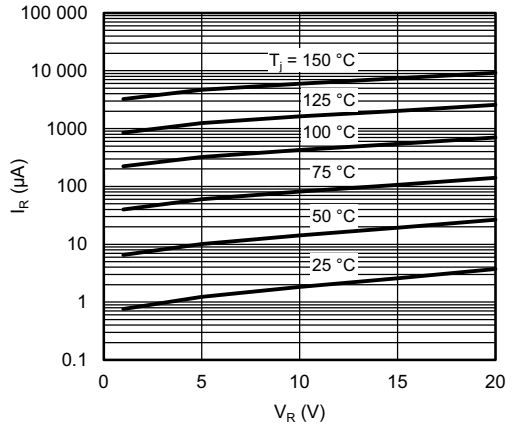


Fig. 2 - Typical Reverse Leakage Current vs. Reverse Voltage

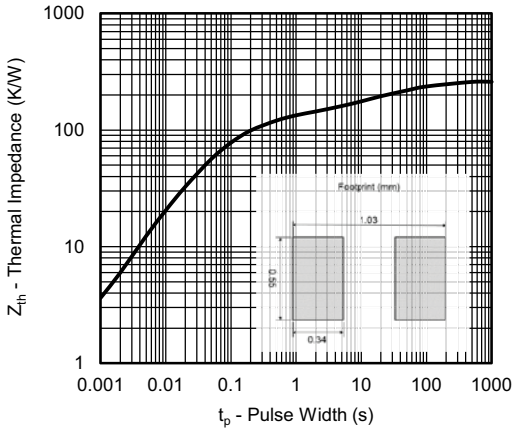
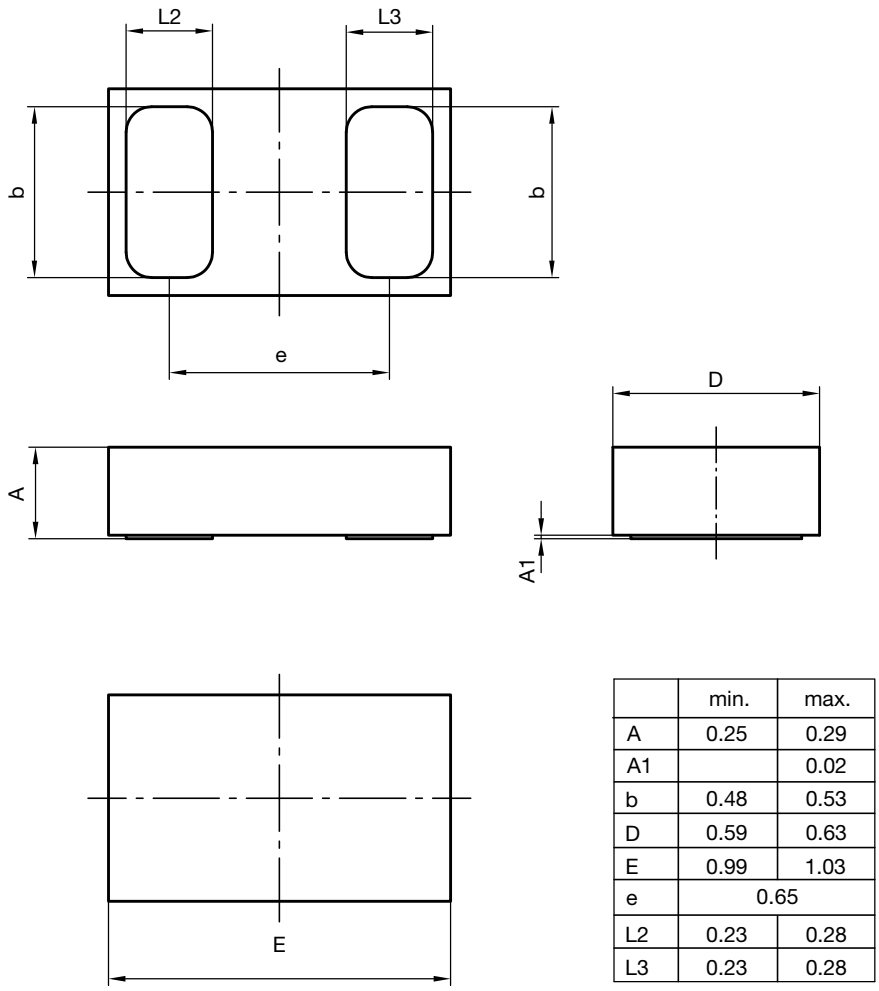


Fig. 4 - Typical Thermal Impedance vs. Time

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



	min.	max.
A	0.25	0.29
A1		0.02
b	0.48	0.53
D	0.59	0.63
E	0.99	1.03
e	0.65	
L2	0.23	0.28
L3	0.23	0.28

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Created - Date: 02. April 2015

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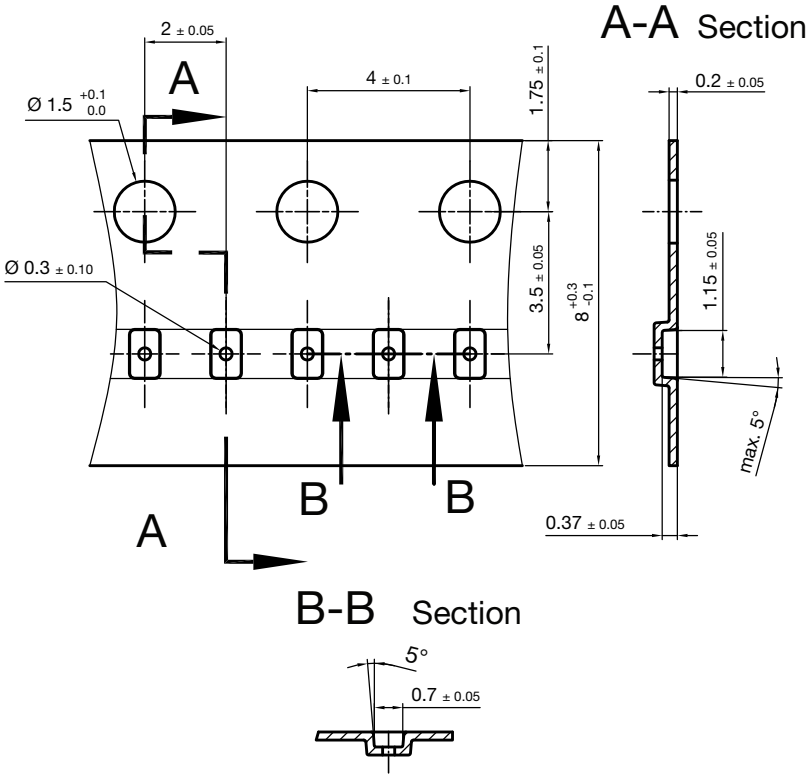
Footprint and soldering recommendation:
please see Application Note: www.vishay.com/doc?85917

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

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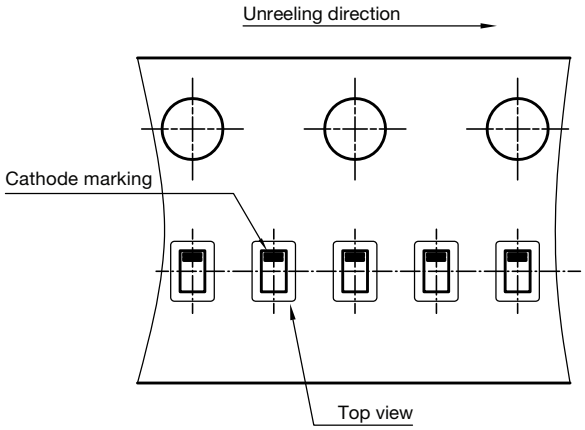
ORIENTATION IN CARRIER CLP1006-2L



Orientation in Carrier CLP1006-2L (VSKY)
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