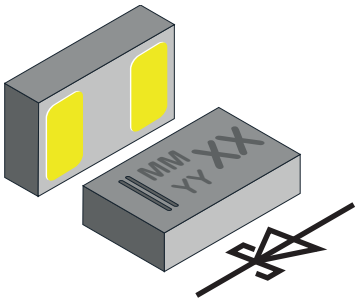
Schottky Rectifier Surface-Mount FlipKY® Gen 2



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. 405 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 AVAILABLE

3D Models | SPICE Models | Related Documents | Footprints

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
VSKY05301006	VSKY05301006-G4-08	Single	CLP1006-2L	3A	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}	30	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 = 30 V	I_R	-	75	µA
Forward voltage	I_F = 100 mA	V_F	0.335	0.360	V
	I_F = 0.5 A	V_F	0.405	0.430	V
Diode capacitance	V_R = 0 V, f = 1 MHz	C_D	140	-	pF

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

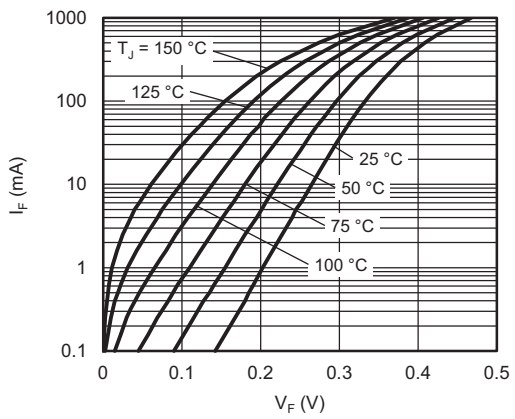


Fig. 1 - Typical Forward Current vs. Forward Voltage

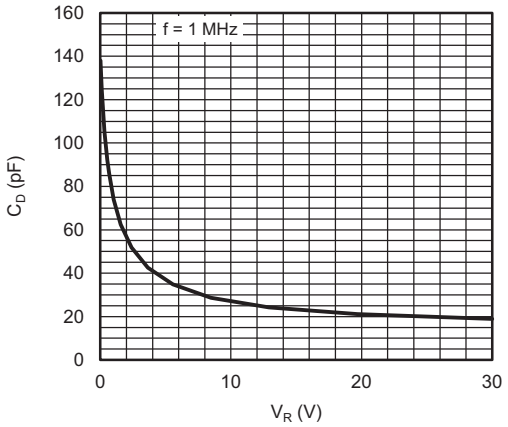


Fig. 3 - Typical Capacitance vs. Reverse Voltage

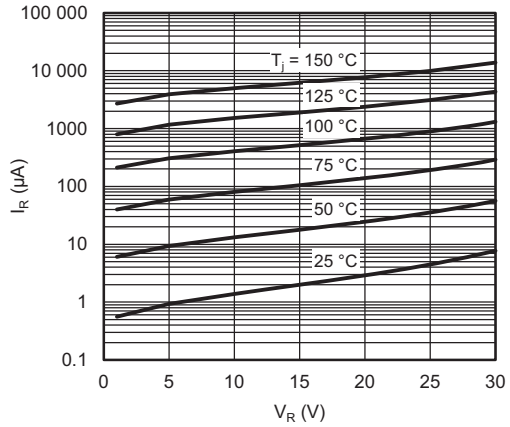


Fig. 2 - Typical Reverse Leakage Current vs. Reverse Voltage

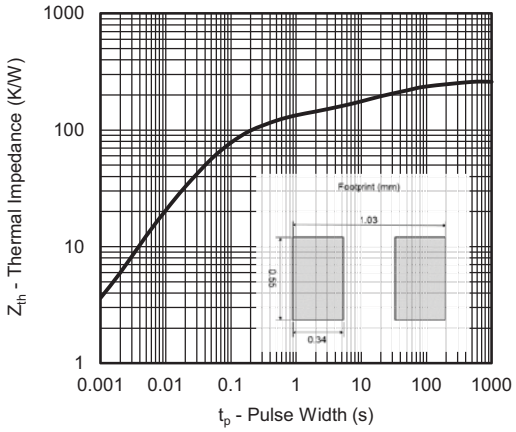
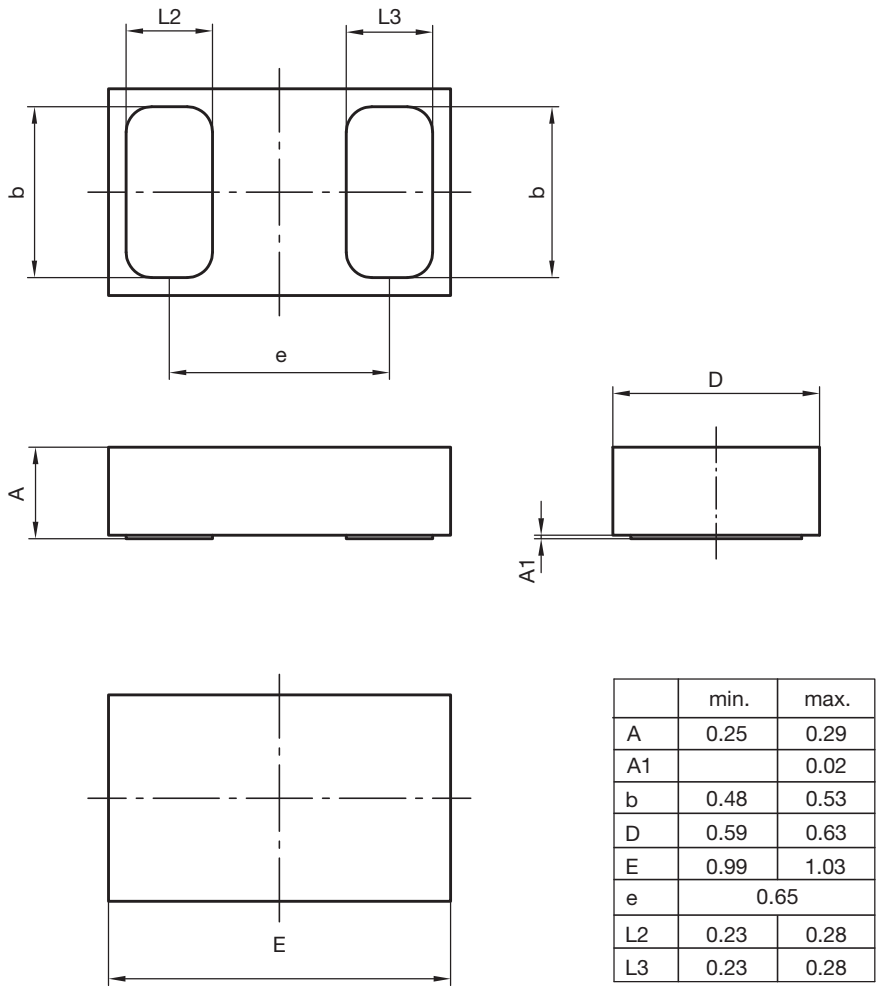


Fig. 4 - Typical Thermal Impedance vs. Time

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



	min.	max.
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

Document no.:S8-V-3906.04-039 (4)

Created - Date: 02. April 2015

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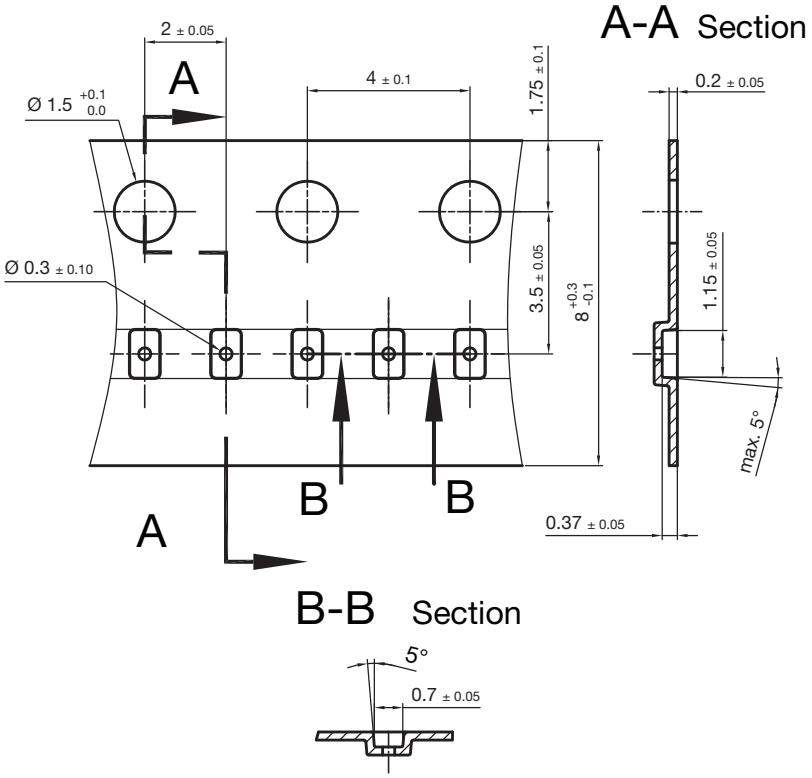
Footprint and soldering recommendation:
please see Application Note: www.vishay.com/doc?85917

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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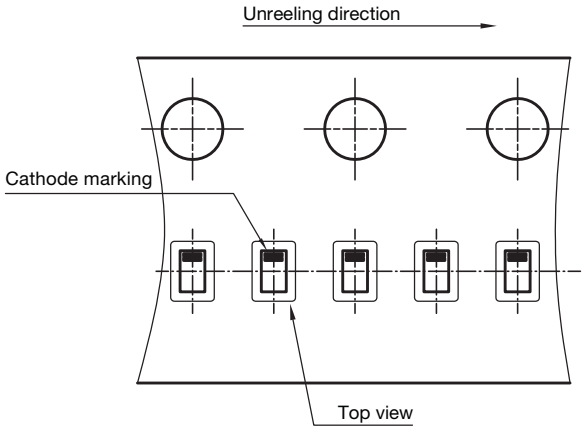
ORIENTATION IN CARRIER CLP1006-2L



Orientation in Carrier CLP1006-2L (VSKY)
S8-V-3906.04-052 (4)
03.02.2016

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