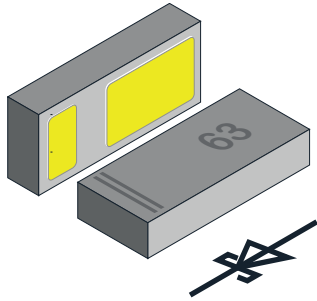


# Schottky Rectifier Surface-Mount FlipKY® Gen 3



## 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 1000 mA)
- Low reverse current (< 15  $\mu$ A at 10 V)
- AEC-Q101 qualified
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

AUTOMOTIVE GRADE


**RoHS**  
 COMPLIANT  
 HALOGEN  
**FREE**  
**GREEN**  
(5-2008)

## LINKS TO ADDITIONAL RESOURCES



PARTS TABLE								
PART	GRADE	ORDERING CODE	CIRCUIT CONFIGURATION	PACKAGE NAME	TYPE MARKING	WEIGHT	TAPED UNITS PER REEL (8 mm TAPE ON 7" REEL)	MINIMUM ORDER QUANTITY
VSKY1030E6	AEC-Q101	VSKY1030E6HG4-08	Single	CLP1406-2L	63	0.57 mg	5000	5000

ABSOLUTE MAXIMUM RATINGS ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Reverse voltage		$V_R$	30	V
Forward continuous current		$I_F$	1000	mA
Surge forward current	Single pulse; 8.3 ms half sine wave	$I_{FSM}$	18	A

THERMAL CHARACTERISTICS ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to soldering point	Acc. JEDEC® JESD51-41	$R_{thJS}$	8	K/W
Maximum operating junction temperature		$T_j \text{ max.}$	150	$^{\circ}\text{C}$
Storage temperature range		$T_{stg}$	-65 to +150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL	TYP.	MAX.	UNIT
Leakage current	$V_R = 10\text{ V}$	$I_R$	-	15	$\mu\text{A}$
Leakage current	$V_R = 30\text{ V}$	$I_R$	-	60	$\mu\text{A}$
Forward voltage	$I_R = 100\text{ mA}$	$V_F$	316	367	mV
Forward voltage	$I_R = 500\text{ mA}$	$V_F$	380	432	mV
Forward voltage	$I_R = 1000\text{ mA}$	$V_F$	440	493	mV
Diode capacitance	$V_R = 0\text{ V}, f = 1\text{ MHz}$	$C_D$	230	-	pF

**RATINGS AND CHARACTERISTICS CURVES** ( $T_A = 25\text{ }^\circ\text{C}$  unless otherwise noted)

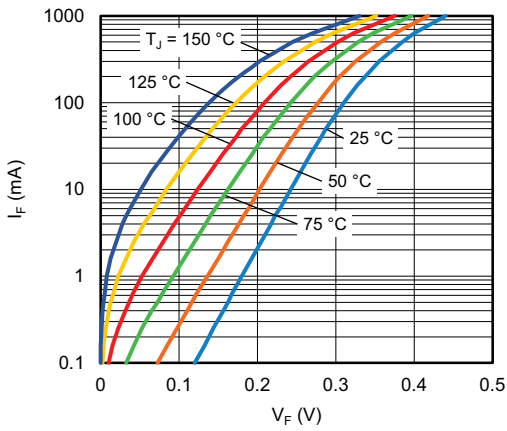


Fig. 1 - Typical Forward Current vs. Forward Voltage

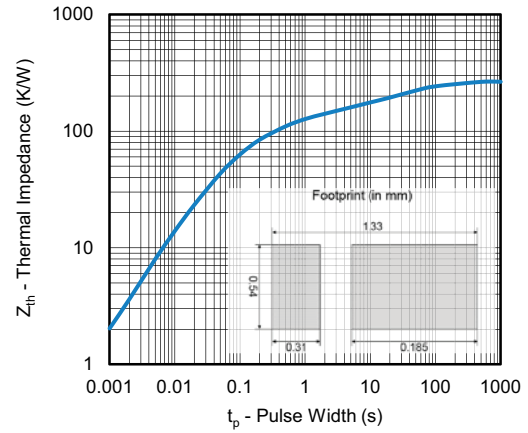


Fig. 4 - Typical Thermal Impedance vs. Time

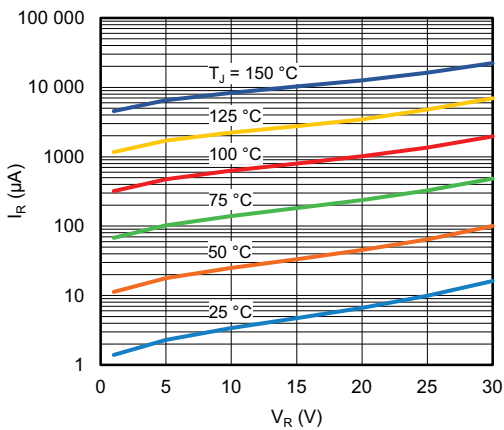


Fig. 2 - Typical Reverse Leakage Current vs. Reverse Voltage

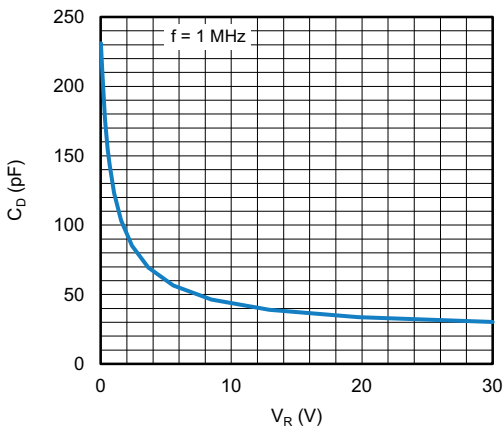
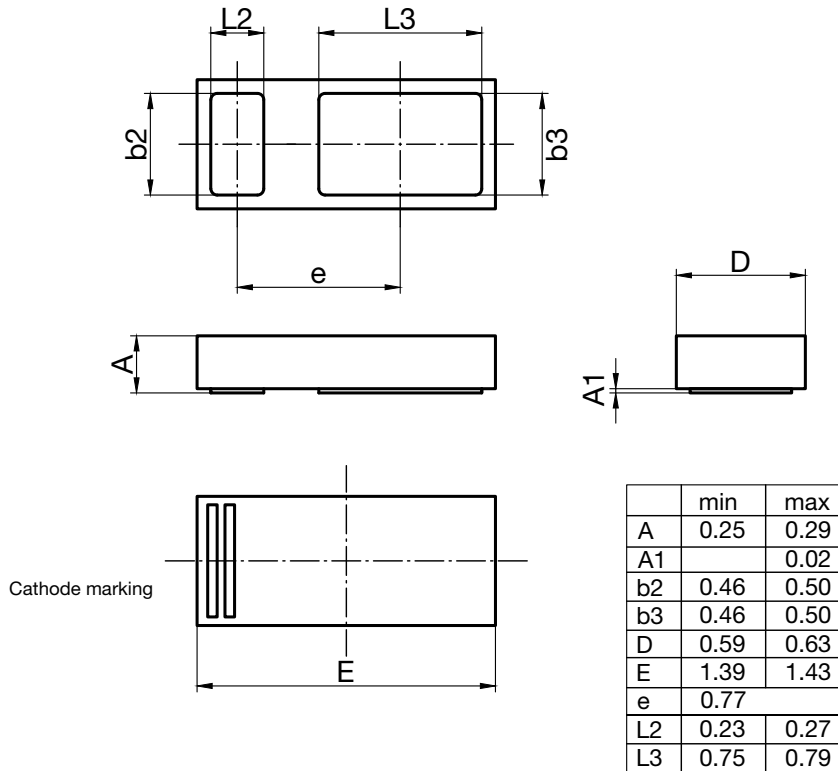


Fig. 3 - Typical Capacitance vs. Reverse Voltage

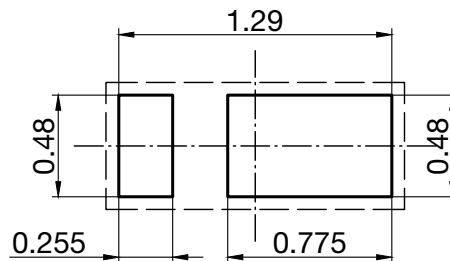


PACKAGE DIMENSIONS in millimeters: **CLP1406-2L**

Package = Chip Dimensions in mm



foot print recommendation:



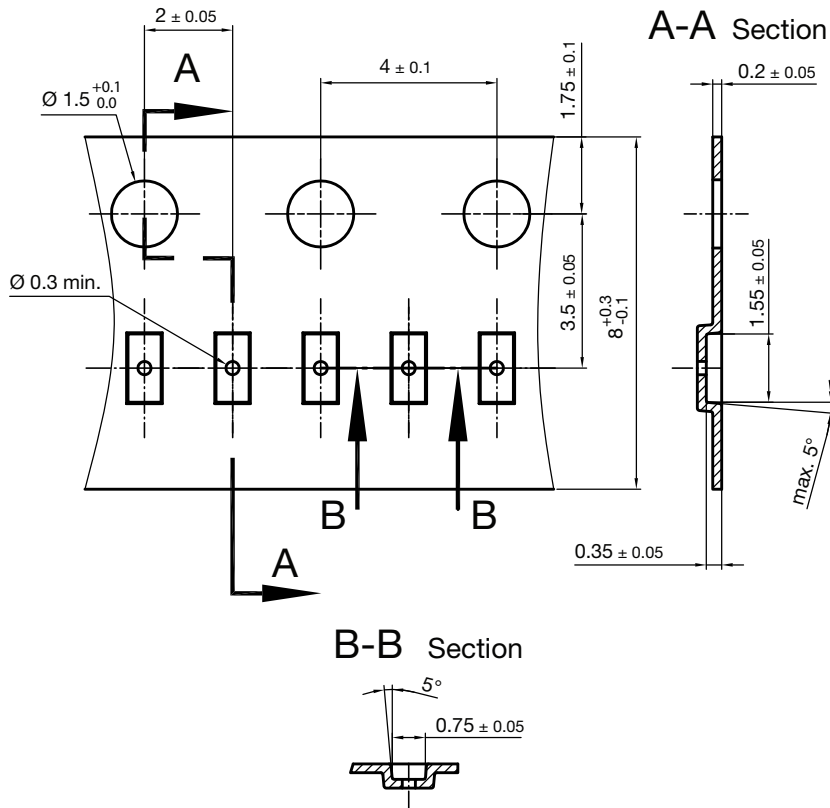
Document no.:S8-V-3906.04-045 (4)  
 Created - Date: 22. Jan. 2016  
 Rev.1 - Date: 19. Dec. 2023  
 23228

**Footprint and soldering recommendation:**

please see Application Note: [www.vishay.com/doc?85917](http://www.vishay.com/doc?85917)



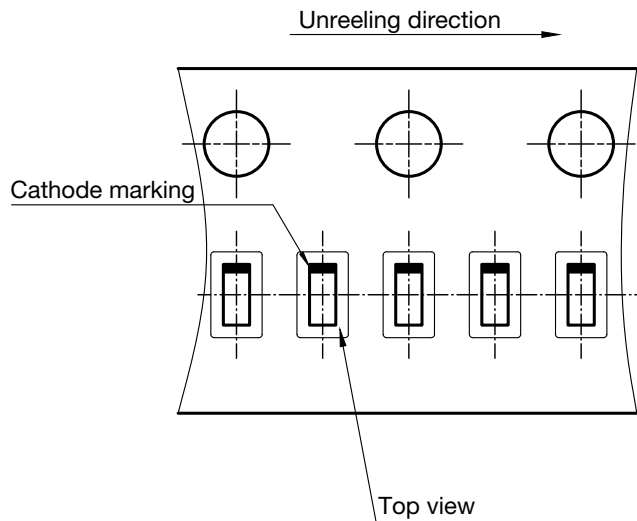
**CARRIER TAPE** in millimeters: **CLP1406-2L**



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

Document no. S8-V-3906.04-046 (4)  
Created - Date: 22. Jan. 2016  
22879

**ORIENTATION IN CARRIER CLP1406-2L**



Document no. S8-V-3906.04-047 (4)  
Created - Date: 19.12.2023  
22880



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