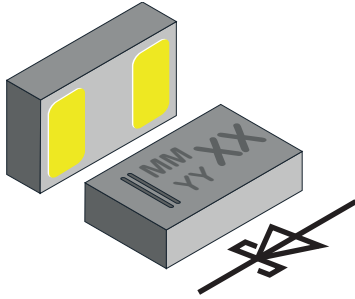


## Schottky Rectifier Surface-Mount FlipKY<sup>®</sup> Gen 2



### 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  $\mu$ A at 10 V)
- Material categorization:  
for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.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
VSKY05301006	VSKY05301006-G4-08	Single	CLP1006-2L	3A	0.400 mg	10 000	10 000

ABSOLUTE MAXIMUM RATINGS ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , 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 ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , 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	$R_{thJA}$	280	K/W	
Maximum operating junction temperature		$T_j$	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	$\mu\text{A}$	
	$V_R = 30\text{ V}$	$I_R$	-	75	$\mu\text{A}$	
Forward voltage	$I_F = 100\text{ mA}$	$V_F$	0.335	0.360	V	
	$I_F = 0.5\text{ A}$	$V_F$	0.405	0.430	V	
Diode capacitance	$V_R = 0\text{ V}$ , $f = 1\text{ MHz}$	$C_D$	140	-	pF	

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

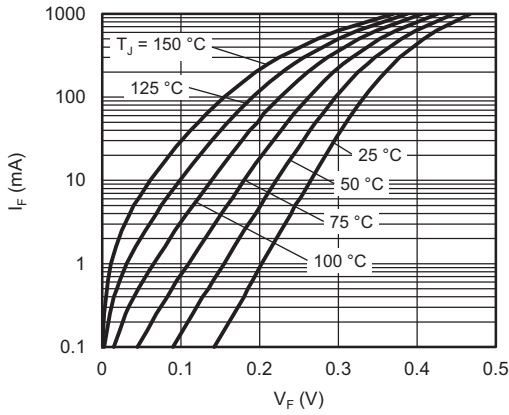


Fig. 1 - Typical Forward Current vs. Forward Voltage

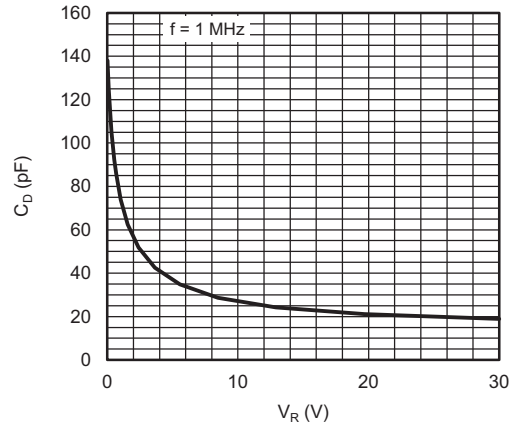


Fig. 3 - Typical Capacitance vs. Reverse Voltage

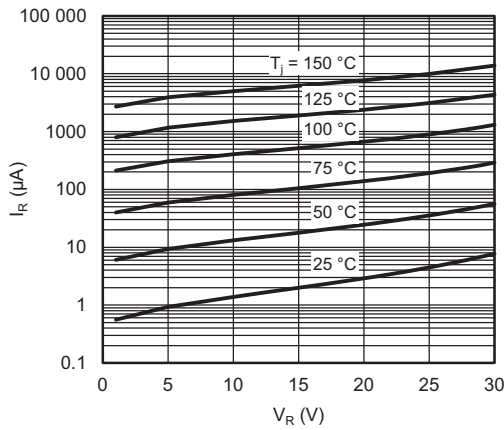


Fig. 2 - Typical Reverse Leakage Current vs. Reverse Voltage

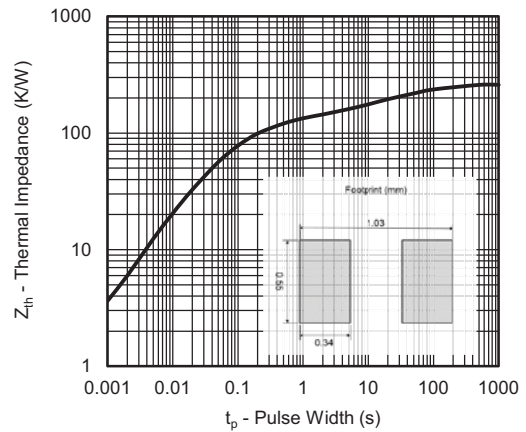
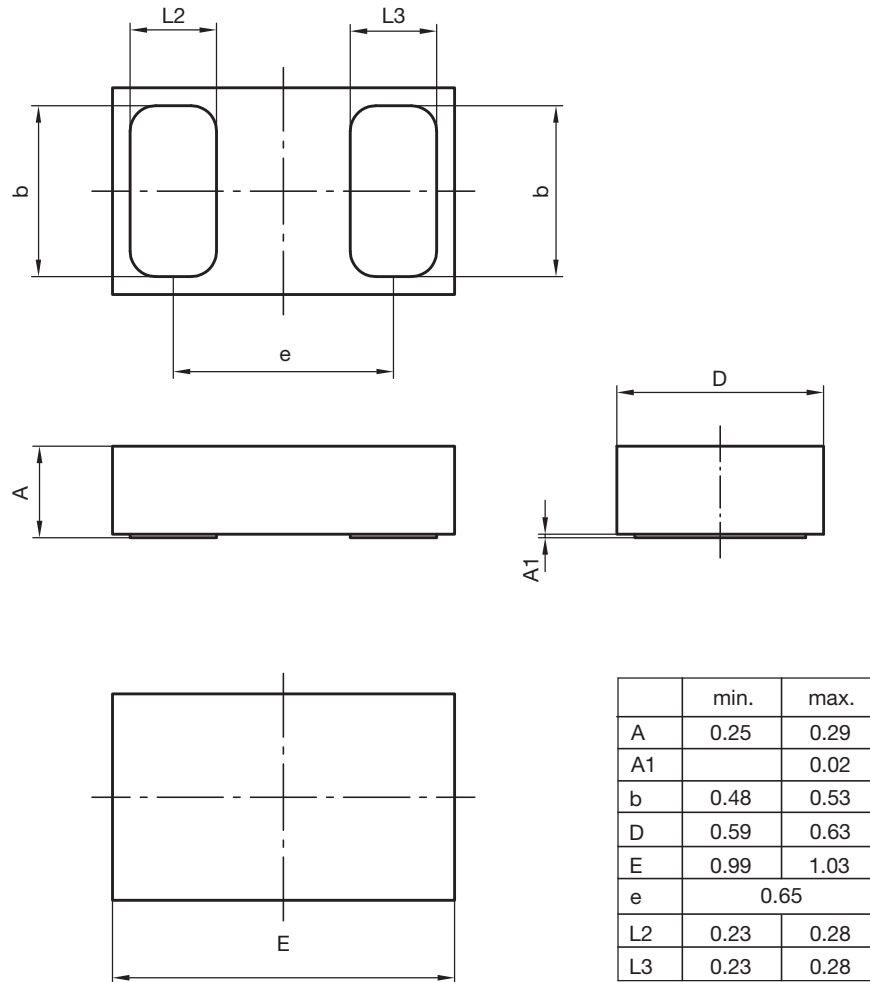


Fig. 4 - Typical Thermal Impedance vs. Time

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



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**Footprint and soldering recommendation:**

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





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