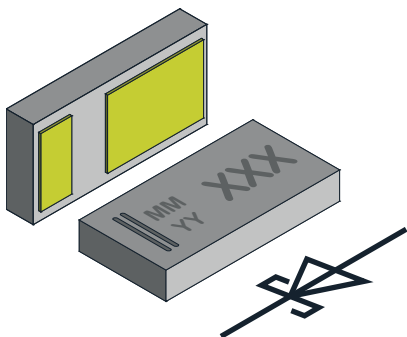


# Schottky Rectifier Surface Mount FlipKY® Gen 2



## FEATURES

- Schottky diode for high-speed switching
- Very low dimensions - 1.6 mm x 0.8 mm x 0.31 mm
- 2.0 A forward current
- Low forward voltage drop (typ. 510 mV at 2.0 A)
- Low reverse current (< 18 µA at 10 V)
- Commercial grade
- 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)

## MECHANICAL DATA

Case: CLP1608-2L

Int. construction: single

## PARTS TABLE

PART	ORDERING CODE	INTERNAL CONSTRUCTION	PACKAGE NAME	TYPE CODE	WEIGHT	TAPED UNITS PER REEL (8 mm TAPE ON 7" REEL)	MINIMUM ORDER QUANTITY
VSKY20401608	VSKY20401608-G4-08	Single diode	CLP1608-2L	104	0.840 mg	5000	5000

## ABSOLUTE MAXIMUM RATINGS (T<sub>amb</sub> = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage		V <sub>RRM</sub>	40	V
Maximum average forward rectified current	V <sub>F</sub> = 0.5 V, R <sub>th</sub> = 100 K/W	I <sub>F(AV)</sub>	2	A
Peak forward surge current	8.3 ms single half sine-wave	I <sub>FSM</sub>	28	A
Power dissipation	On FR-4 board 50 mm x 50 mm 35 µm Cu single sided	P <sub>tot</sub>	1000	mW

## THERMAL CHARACTERISTICS (T<sub>amb</sub> = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air	On FR-4 board 50 mm x 50 mm 35 µm Cu single sided	R <sub>thJA</sub>	100	K/W
Maximum operating junction temperature		T <sub>j</sub>	125	°C
Storage temperature range		T <sub>stg</sub>	-65 to +150	°C

## ELECTRICAL CHARACTERISTICS (T<sub>amb</sub> = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	TYP.	MAX.	UNIT
Leakage current	V <sub>R</sub> = 10 V	I <sub>R</sub>		18	µA
	V <sub>R</sub> = 40 V	I <sub>R</sub>		150	µA
Forward voltage	I <sub>F</sub> = 100 mA	V <sub>F</sub>	300	350	mV
	I <sub>F</sub> = 1 A	V <sub>F</sub>	425	470	mV
	I <sub>F</sub> = 2 A	V <sub>F</sub>	510	580	mV
Diode capacitance	V <sub>R</sub> = 0 V, f = 1 MHz	C <sub>D</sub>	340		pF

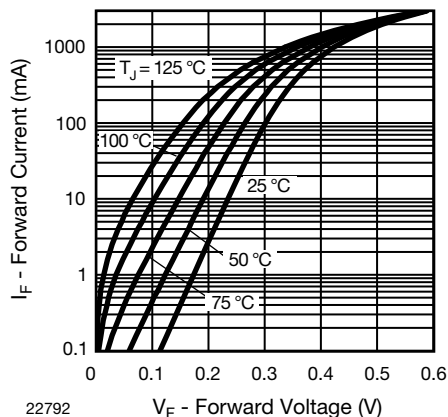
**RATINGS AND CHARACTERISTICS CURVES** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)


Fig. 1 - Typical Forward Current vs. Forward Voltage at Various Temperatures

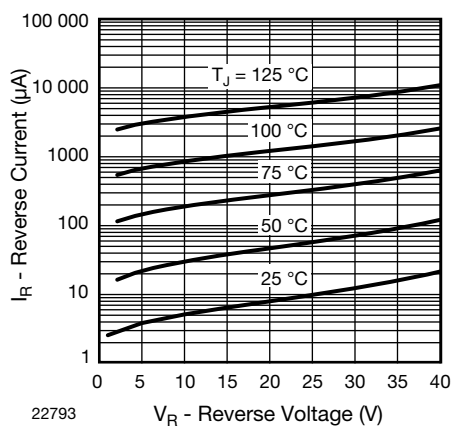


Fig. 2 - Typical Reverse Current vs. Reverse Voltage at Various Temperatures

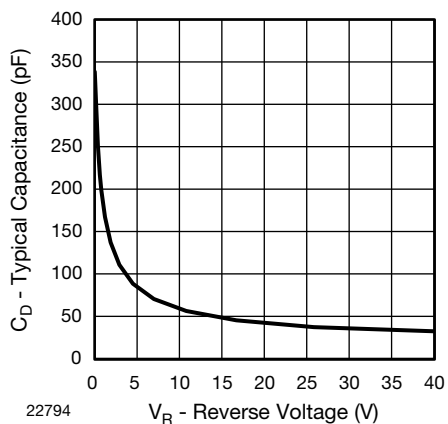
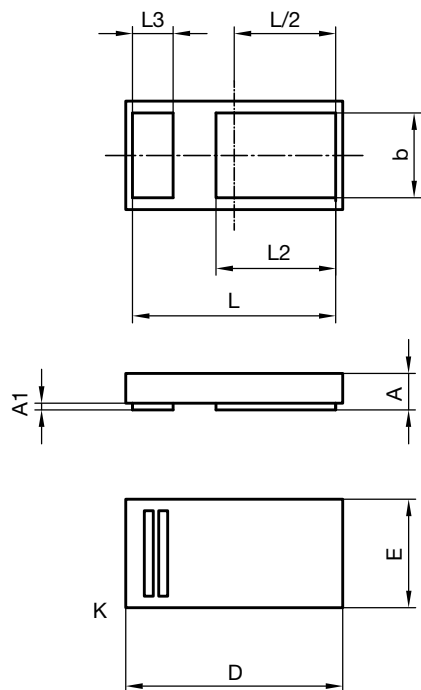


Fig. 3 - Typical Capacitance vs. Reverse Voltage

**PACKAGE DIMENSIONS** in millimeters: **CLP1608-2L**


		A	A1	b	D	E	L	L2	L3
mm	min.	0.25		0.58	1.6 nom.	0.8 nom.	1.42	0.85	0.25
	max.	0.31	0.02	0.65			1.52	0.93	0.33

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22739

**Footprint and soldering recommendation:**

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



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