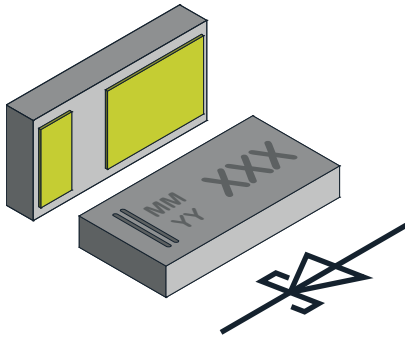


## Schottky Rectifier Surface Mount FlipKY® Gen 2



### 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<br>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<br>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   |

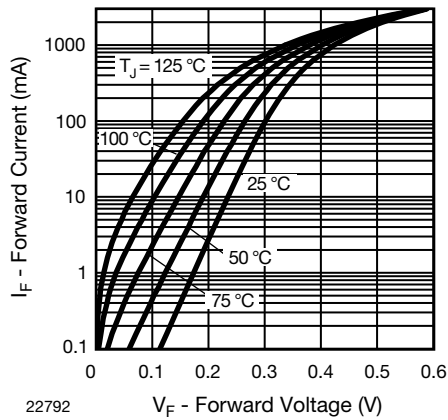
**RATINGS AND CHARACTERISTICS CURVES** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)


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

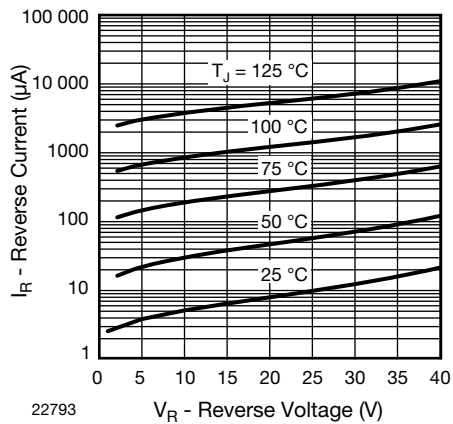


Fig. 2 - Typical Reverse Current vs. Reverse Voltage at Various Temperatures

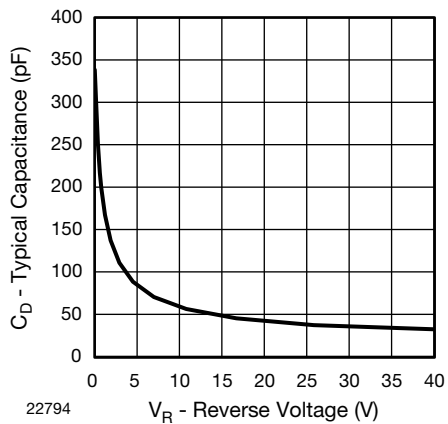
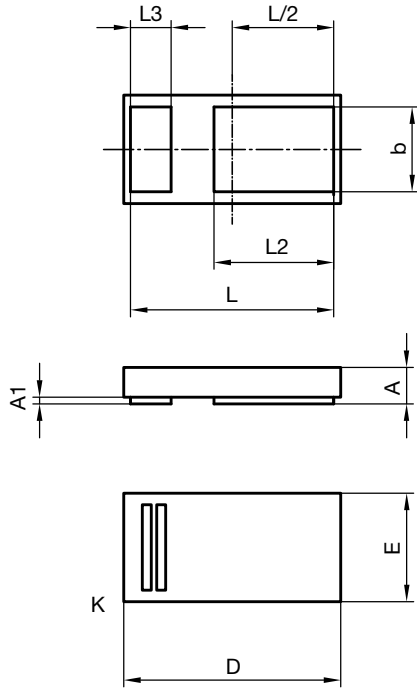


Fig. 3 - Typical Capacitance vs. Reverse Voltage



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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