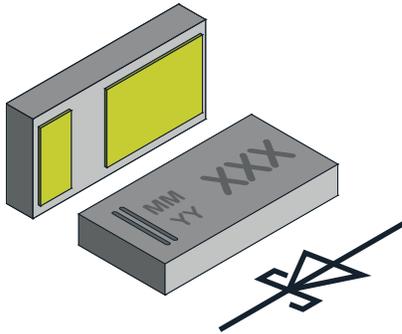


## Schottky Rectifier Surface Mount FlipKY<sup>®</sup> Gen 2



### 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  $\mu$ A 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 ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage		$V_{RRM}$	40	V
Maximum average forward rectified current	$V_F = 0.5\text{ V}$ , $R_{th} = 100\text{ K/W}$	$I_{F(AV)}$	2	A
Peak forward surge current	8.3 ms single half sine-wave	$I_{FSM}$	28	A
Power dissipation	On FR-4 board 50 mm x 50 mm 35 $\mu$ m Cu single sided	$P_{tot}$	1000	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	On FR-4 board 50 mm x 50 mm 35 $\mu$ m Cu single sided	$R_{thJA}$	100	K/W
Maximum operating junction temperature		$T_j$	125	$^{\circ}\text{C}$
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	$V_R = 10\text{ V}$	$I_R$		18	$\mu$ A
	$V_R = 40\text{ V}$	$I_R$		150	$\mu$ A
Forward voltage	$I_F = 100\text{ mA}$	$V_F$	300	350	mV
	$I_F = 1\text{ A}$	$V_F$	425	470	mV
	$I_F = 2\text{ A}$	$V_F$	510	580	mV
Diode capacitance	$V_R = 0\text{ V}$ , $f = 1\text{ MHz}$	$C_D$	340		pF

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

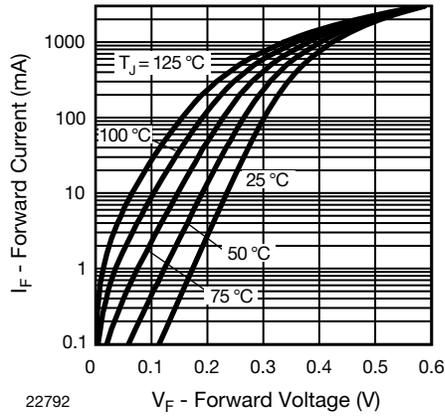


Fig. 1 - Typical Forward Current vs. Forward Voltage at Various Temperatures

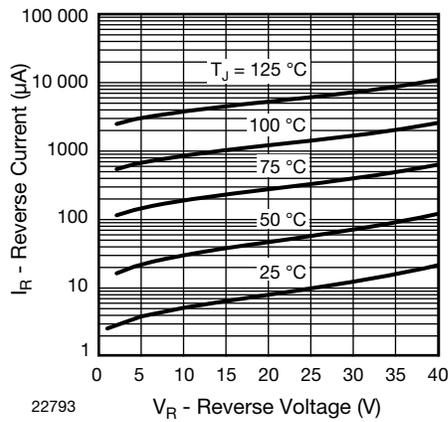


Fig. 2 - Typical Reverse Current vs. Reverse Voltage at Various Temperatures

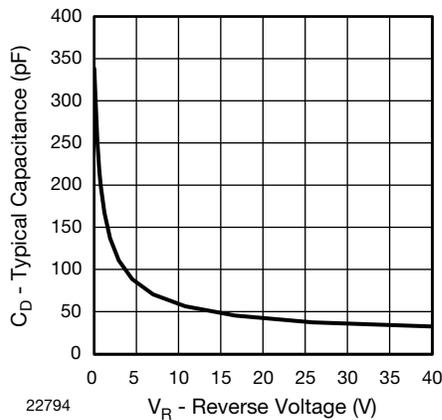
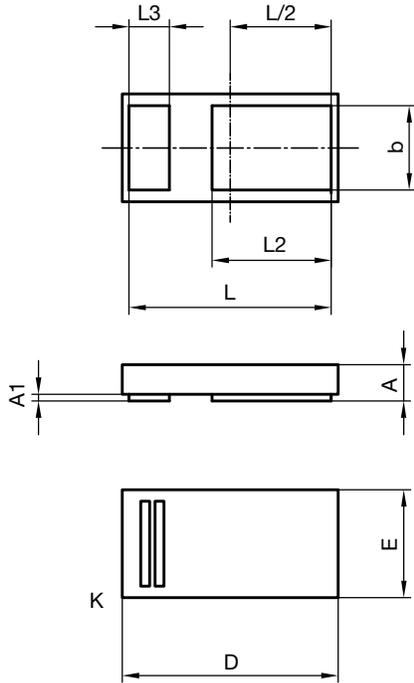


Fig. 3 - Typical Capacitance vs. Reverse Voltage



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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