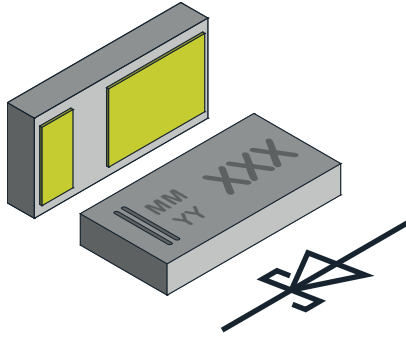


## Schottky Rectifier Surface-Mount FlipKY<sup>®</sup> Gen 2



### 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. 500 mV at 2.0 A)
- Low reverse current (< 20  $\mu$ 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
VSKY20301608	VSKY20301608-G4-08	Single	CLP1608-2L	103	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		$V_{RRM}$	30	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	$V_R = 10\text{ V}$	$I_R$		20	$\mu$ A	
	$V_R = 30\text{ V}$	$I_R$		150	$\mu$ A	
Forward voltage	$I_F = 100\text{ mA}$	$V_F$	0.290	0.320	V	
	$I_F = 1\text{ A}$	$V_F$	0.400	0.430	V	
	$I_F = 2\text{ A}$	$V_F$	0.500	0.530	V	
Diode capacitance	$V_R = 0\text{ V}$ , $f = 1\text{ MHz}$	$C_D$	375		pF	

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

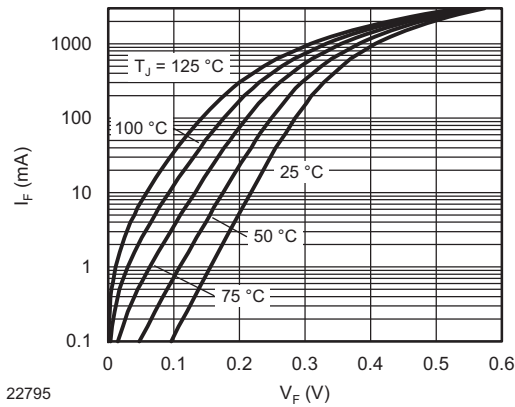


Fig. 1 - Typical Forward Current vs. Forward Voltage at Various Temperatures

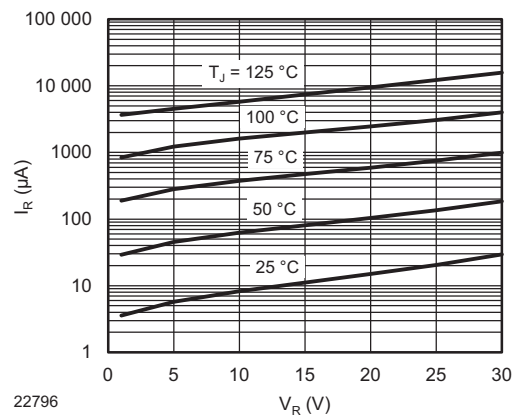


Fig. 2 - Typical Reverse Current vs. Reverse Voltage at Various Temperatures

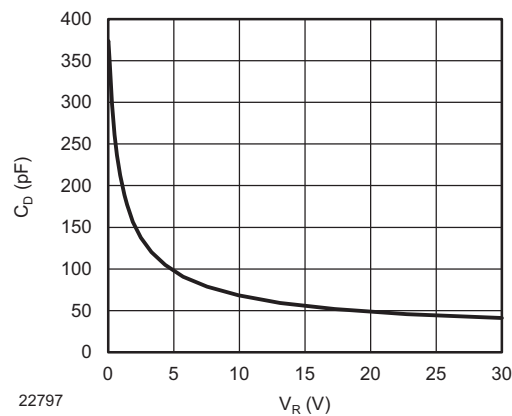
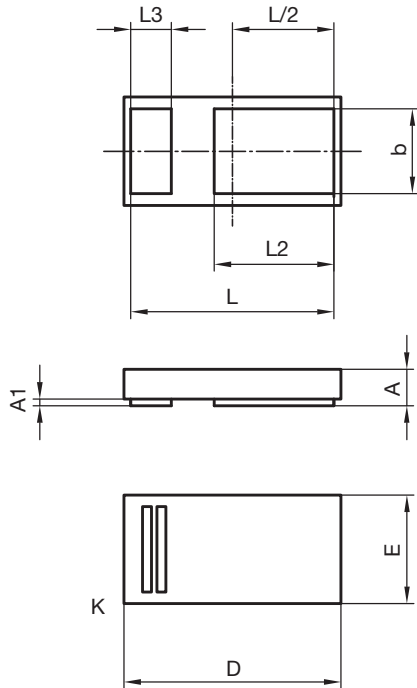


Fig. 3 - Typical Capacitance vs. Reverse Voltage

**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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