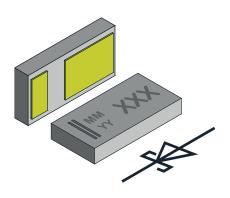


## Vishay Semiconductors

# 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. 500 mV at 2.0 A)
- Low reverse current (< 20 μA at 10 V)</li>
- Material categorization: for definitions of compliance please see 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 <sub>amb</sub> = 25 °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 <sub>F(AV)</sub>	2	Α				
Peak forward surge current	8.3 ms single half sine-wave	I <sub>FSM</sub>	28	Α				
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		Tj	125	°C				
Storage temperature range		T <sub>stg</sub>	-65 to +150	°C				

<b>ELECTRICAL CHARACTERISTICS</b> (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>		20	μΑ			
Leakage current	V <sub>R</sub> = 30 V	I <sub>R</sub>		150	μΑ			
	I <sub>F</sub> = 100 mA	$V_{F}$	0.290	0.320	V			
Forward voltage	I <sub>F</sub> = 1 A	$V_{F}$	0.400	0.430	V			
	I <sub>F</sub> = 2 A	V <sub>F</sub>	0.500	0.530	V			
Diode capacitance	$V_R = 0 V, f = 1 MHz$	C <sub>D</sub>	375		pF			

# Vishay Semiconductors

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

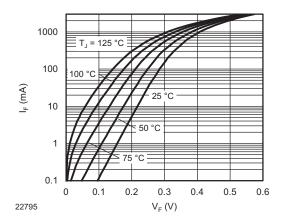


Fig. 1 - Typical Forward Current vs. Forward Voltage at Various Temperatures

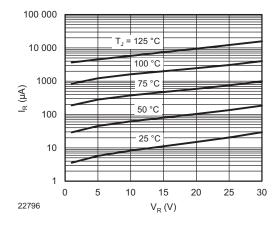


Fig. 2 - Typical Reverse Current vs. Reverse Voltage at Various Temperatures

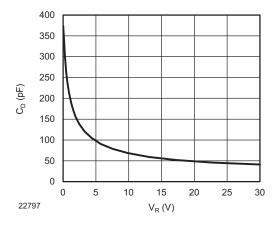
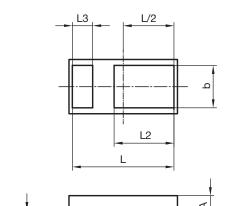


Fig. 3 - Typical Capacitance vs. Reverse Voltage

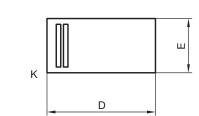


# Vishay Semiconductors

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



		А	A1	b	D	Е	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



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