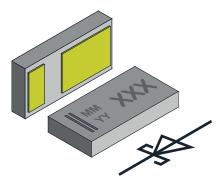
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**Vishay Semiconductors** 

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



#### **DESIGN SUPPORT TOOLS AVAILABLE**



#### 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)
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>





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		
VSKY20401608	VSKY20401608-G4-08	Single	CLP1608-2L	104	0.840 mg	5000	5000		

<b>ABSOLUTE MAXIMUM RATINGS</b> (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	$V_F = 0.5 V, R_{th} = 100 K/W$	I <sub>F(AV)</sub>	2	А			
Peak forward surge current	8.3 ms single half sine-wave	I <sub>FSM</sub>	28	А			
Power dissipation	On FR-4 board 50 mm x 50 mm 35 μm Cu single sided	P <sub>tot</sub>	1000	mW			

<b>THERMAL CHARACTERISTICS</b> (T <sub>amb</sub> = 25 °C, unless otherwise specified)								
PARAMETER	TEST CONDITION	ONDITION SYMBOL		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				

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			
Leakage current	V <sub>R</sub> = 40 V	I <sub>R</sub>		150	μA			
	I <sub>F</sub> = 100 mA	V <sub>F</sub>	0.300	0.350	V			
Forward voltage	I <sub>F</sub> = 1 A	VF	0.425	0.470	V			
	I <sub>F</sub> = 2 A	V <sub>F</sub>	0.510	0.580	V			
Diode capacitance	$V_{R} = 0 V, f = 1 MHz$	CD	340		pF			

 Rev. 1.4, 27-Feb-2019
 1
 Document Number: 85892

 For technical questions within your region:
 DiodesAmericas@vishay.com, DiodesAsia@vishay.com, DiodesEurope@vishay.com

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

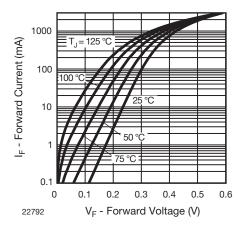


Fig. 1 - Typical Forward Current vs. Forward Voltage at Various Temperatures

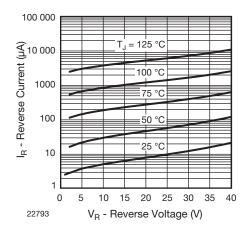


Fig. 2 - Typical Reverse Current vs. Reverse Voltage at Various Temperatures

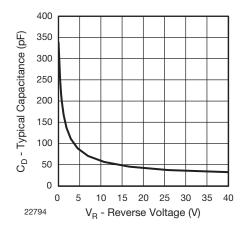


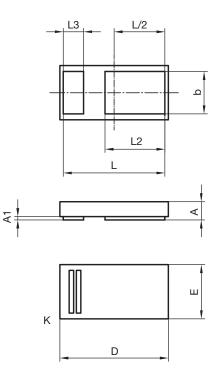
Fig. 3 - Typical Capacitance vs. Reverse Voltage

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#### 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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#### Footprint and soldering recommendation:

please see Application Note: <u>www.vishay.com/doc?85917</u>



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