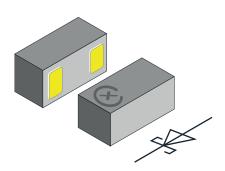


# Small Signal Schottky Diode FlipKY® Gen 2



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









#### **FEATURES**

- Schottky diode for high-speed switching
- Very low dimensions:0.6 mm x 0.3 mm x 0.29 mm
- 0.2 A forward current
- Low forward voltage drop (typ. 435 mV at 0.2 A)
- Low reverse current (< 3 μA at 10 V)
- Material categorization: for definitions of compliance please see www.vishav.com/doc?99912





ROHS COMPLIANT HALOGEN

FREE GREEN (5-2008)

PARTS TABLE							
PART	ORDERING CODE	CIRCUIT CONFIGURATION	PACKAGE NAME	TYPE MARKING	WEIGHI	TAPED UNITS PER REEL (8 mm TAPE ON 7" REEL)	MINIMUM ORDER QUANTITY
VSKY02300603	VSKY02300603-G4-08	Single	CLP0603-2M	23	0.115 mg	15 000	15 000

<b>ABSOLUTE MAXIMUM RATINGS</b> (T <sub>amb</sub> = 25 °C, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Reverse voltage		$V_R$	30	V
Forward continuous current		I <sub>F</sub>	200	mA
Surge forward current	8.3 ms half sine-wave	I <sub>FSM</sub>	6	Α
Dower discipation	Footprint acc. Fig. 4	P <sub>tot</sub>	278	mW
Power dissipation	Infinite heat sink		1712	

THERMAL CHARACTERISTICS (T <sub>amb</sub> = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT	
Thermal resistance junction to ambient air	Acc. JEDEC® 51-3 with footprint acc. Fig. 4	R <sub>thJA</sub>	450	K/W	
Thermal resistance junction to soldering point	Infinite heat sink	R <sub>thJS</sub>	73		
Maximum operating junction temperature		Tj	150	°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
Lookaga aurrant	V <sub>R</sub> = 10 V	I <sub>R</sub>		3	- μΑ
Leakage current	V <sub>R</sub> = 30 V	I <sub>R</sub>		10	
	I <sub>F</sub> = 10 mA	V <sub>F</sub>	295	350	mV
Forward voltage	I <sub>F</sub> = 100 mA	V <sub>F</sub>	385	460	
	I <sub>F</sub> = 200 mA	V <sub>F</sub>	435	500	
Diode capacitance	V <sub>R</sub> = 0 V, f = 1 MHz	C <sub>D</sub>	33		pF

### **RATINGS AND CHARACTERISTICS CURVES** (T<sub>A</sub> = 25 °C unless otherwise noted)

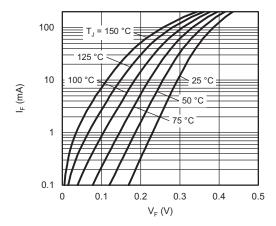


Fig. 1 - Typical Forward Current vs. Forward Voltage at Various Temperatures

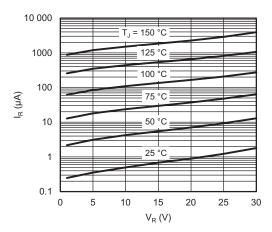


Fig. 2 - Typical Reverse Leakage Current vs. Reverse Voltage at Various Temperatures

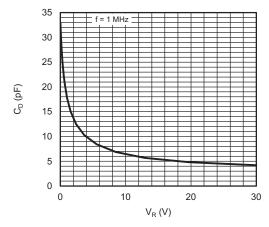


Fig. 3 - Typical Capacitance vs. Reverse Voltage

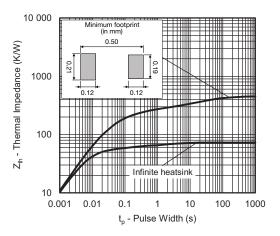
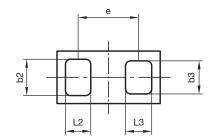
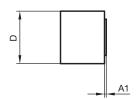


Fig. 4 - Typical Thermal Impedance vs. Time

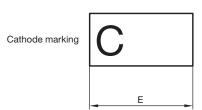


#### PACKAGE DIMENSIONS in millimeters: CLP0603-2M









	min.	max.	
Α	0.25	0.29	
A1	-	0.02	
b2	0.19	0.24	
b3	0.17	0.22	
D	0.29	0.33	
Е	0.59	0.63	
е	0.40		
L2	0.10	0.15	
L3	0.10	0.15	

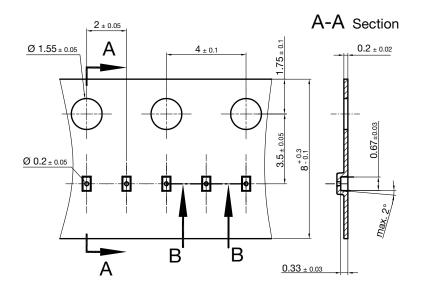
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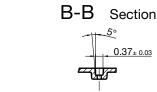
22825

#### Footprint and soldering recommendation:

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

#### **CARRIER TAPE** in millimeters: **CLP0603**

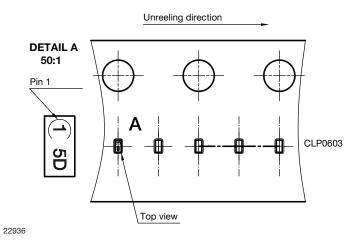




Cummulative tolerances of 10 sprocket holes is +/-0.2mm

22591 Document no. S8-V-3906.04-0025 (4) Created - Date: 22. Nov. 2010

#### **ORIENTATION IN CARRIER CLP0603**



Orientation in Carrier Tape (CLP0603) S8-V-3906.04-026 (4) 22.10.2010



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