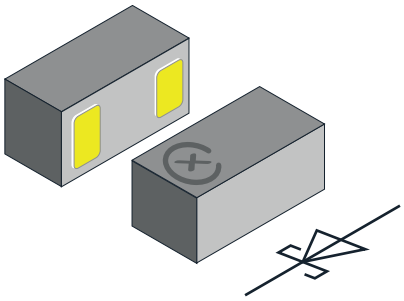
Small Signal Schottky Diode FlipKY® Gen 2



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.vishay.com/doc?99912

Pb-free

e4

RoHS COMPLIANT

HALOGEN FREE

GREEN (5-2008)

MARKING (example only)

22545

1 = year code
Open circle = month code and pin 1
XY = type code

LINKS TO ADDITIONAL RESOURCES

3D Models | SPICE Models | Related Documents | Footprints

PARTS TABLE

PART	ORDERING CODE	CIRCUIT CONFIGURATION	PACKAGE NAME	TYPE MARKING	WEIGHT	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

ABSOLUTE MAXIMUM RATINGS (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Reverse voltage		V_R	30	V
Forward continuous current		I_F	200	mA
Surge forward current	8.3 ms half sine-wave	I_{FSM}	6	A
Power dissipation	Footprint acc. Fig. 4	P_{tot}	278	mW
	Infinite heat sink		1712	

THERMAL CHARACTERISTICS (T_{amb} = 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_{thJA}	450	K/W
Thermal resistance junction to soldering point	Infinite heat sink	R_{thJS}	73	
Maximum operating junction temperature		T_j	150	°C
Storage temperature range		T_{stg}	-65 to +150	

ELECTRICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	TYP.	MAX.	UNIT
Leakage current	V_R = 10 V	I_R		3	µA
	V_R = 30 V	I_R		10	
Forward voltage	I_F = 10 mA	V_F	295	350	mV
	I_F = 100 mA	V_F	385	460	
	I_F = 200 mA	V_F	435	500	
Diode capacitance	V_R = 0 V, f = 1 MHz	C_D	33		pF

RATINGS AND CHARACTERISTICS CURVES (T_A = 25 °C unless otherwise noted)

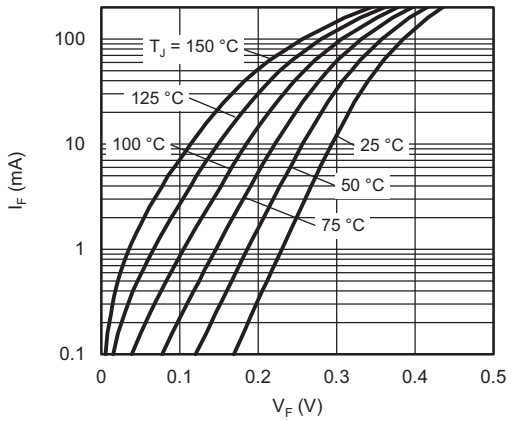


Fig. 1 - Typical Forward Current vs. Forward Voltage at Various Temperatures

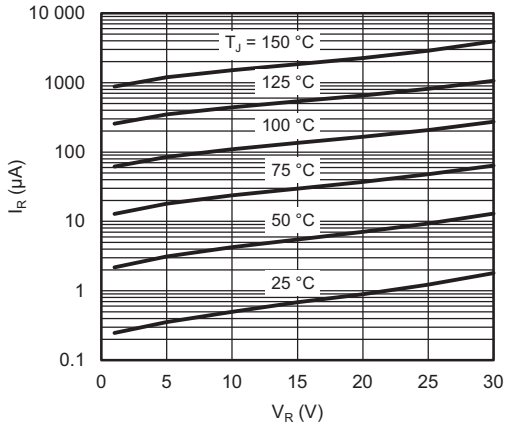


Fig. 2 - Typical Reverse Leakage Current vs. Reverse Voltage at Various Temperatures

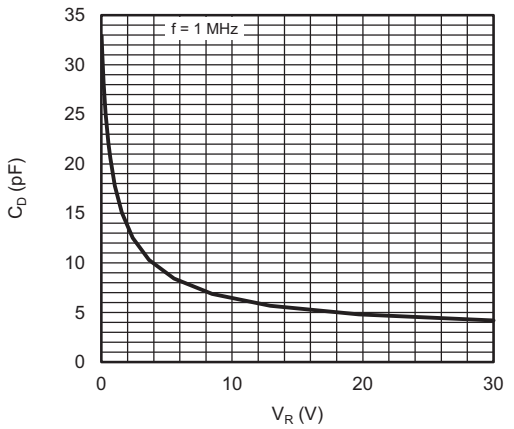


Fig. 3 - Typical Capacitance vs. Reverse Voltage

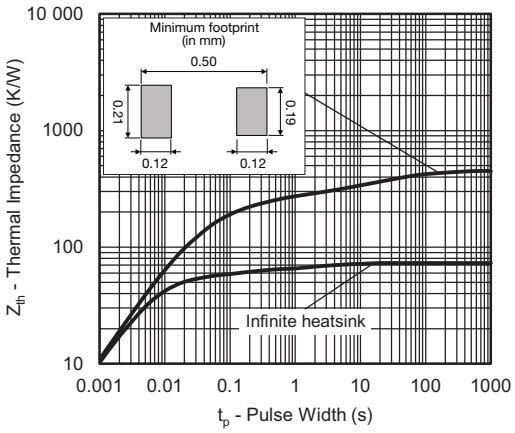
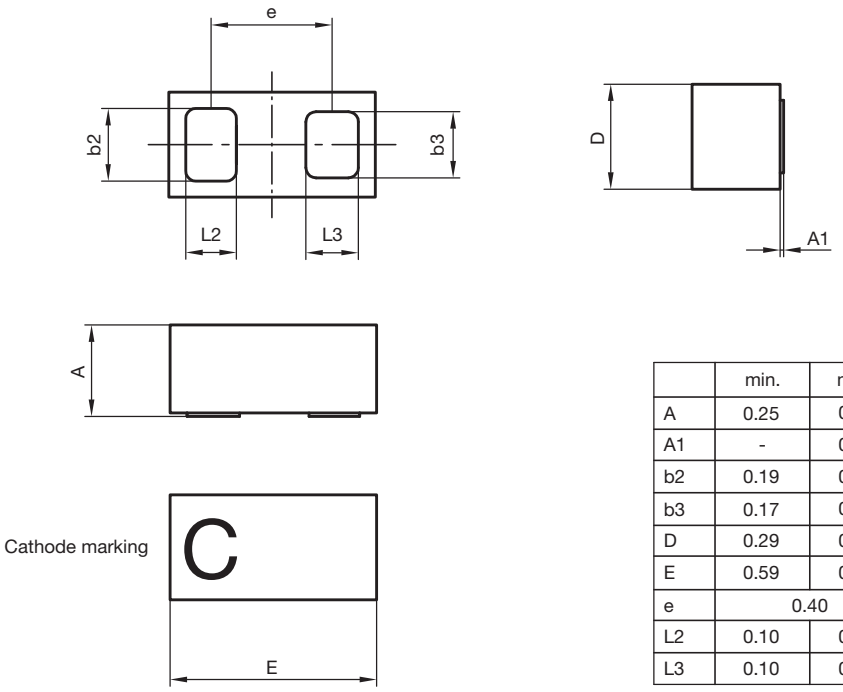


Fig. 4 - Typical Thermal Impedance vs. Time

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

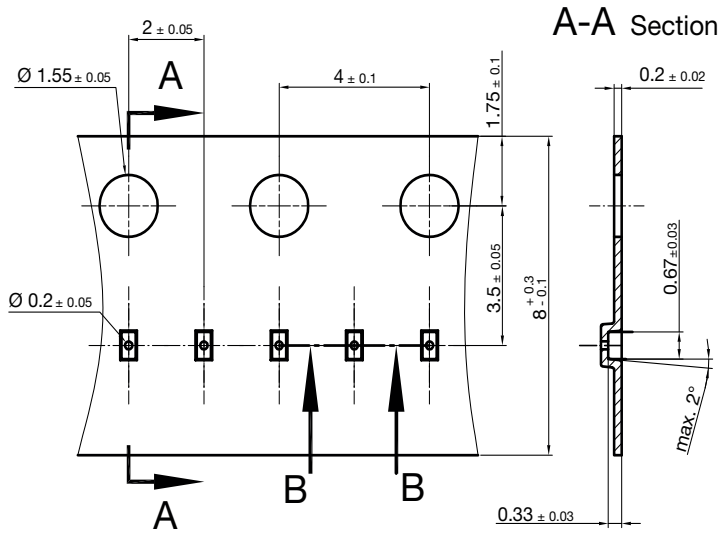


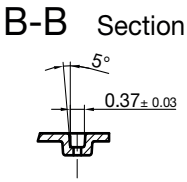
	min.	max.
A	0.25	0.29
A1	-	0.02
b2	0.19	0.24
b3	0.17	0.22
D	0.29	0.33
E	0.59	0.63
e	0.40	
L2	0.10	0.15
L3	0.10	0.15

Document no.: S8-V-3906.04-038 (4)
Rev.3 - Date: 15. Feb. 2017
22825

Footprint and soldering recommendation:
please see Application Note: www.vishay.com/doc?85917

CARRIER TAPE in millimeters: **CLP0603**

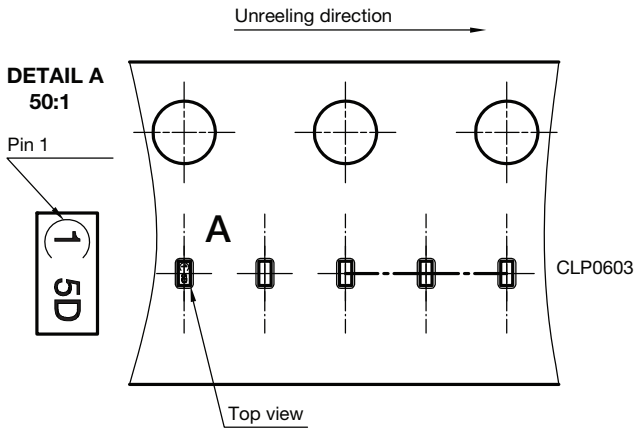




Cummulative tolerances of 10 sprocket holes is +/-0.2 mm

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

ORIENTATION IN CARRIER CLP0603



22936

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

Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, “Vishay”), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

Vishay products are not designed for use in life-saving or life-sustaining applications or any application in which the failure of the Vishay product could result in personal injury or death unless specifically qualified in writing by Vishay. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.