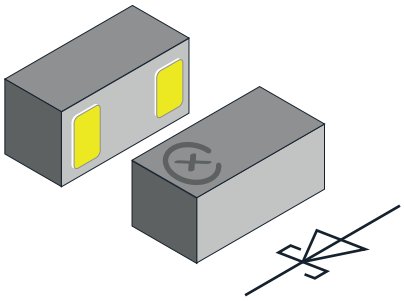
Small Signal Schottky Diode FlipKY® Gen 2



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)

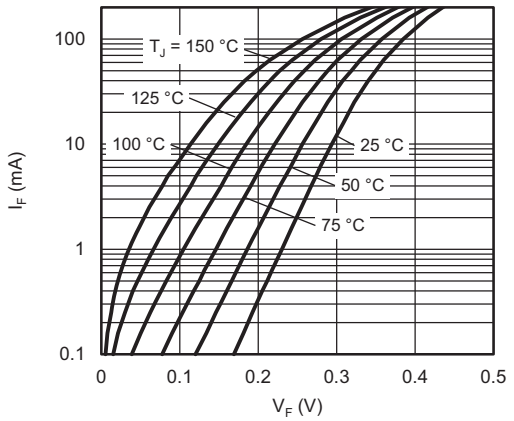


Fig. 1 - Typical Forward Current vs. Forward Voltage at Various Temperatures

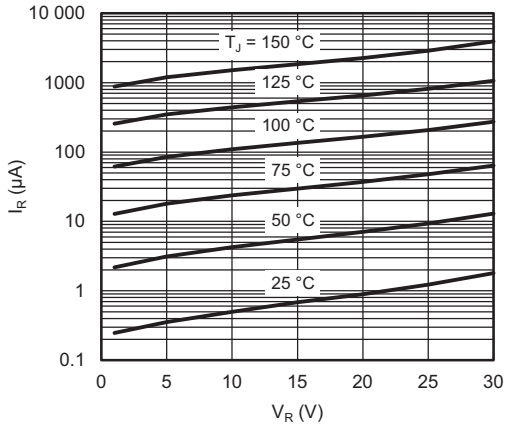


Fig. 2 - Typical Reverse Leakage Current vs. Reverse Voltage at Various Temperatures

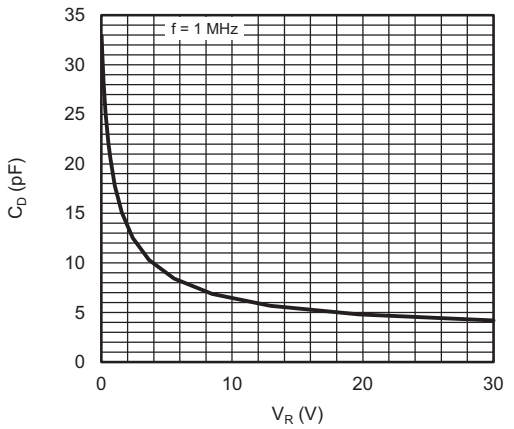


Fig. 3 - Typical Capacitance vs. Reverse Voltage

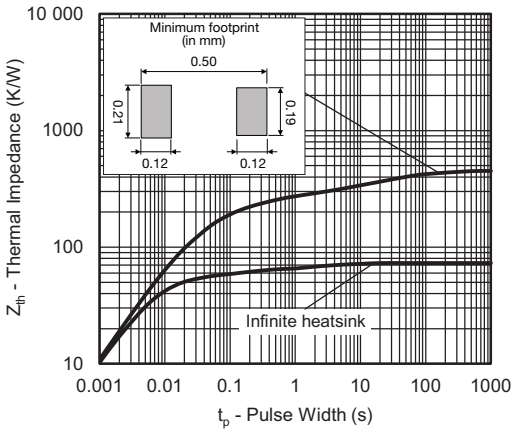
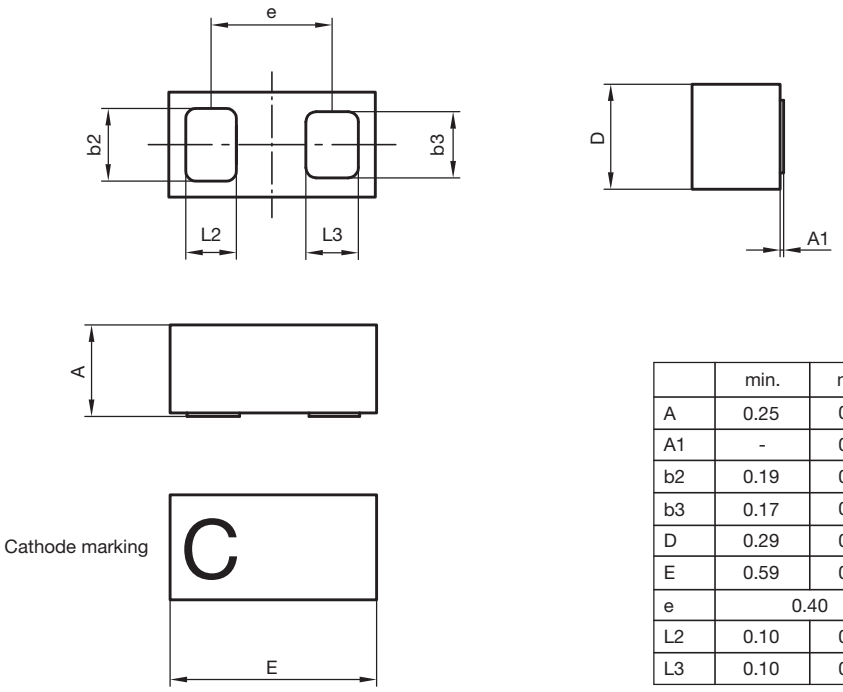


Fig. 4 - Typical Thermal Impedance vs. Time

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

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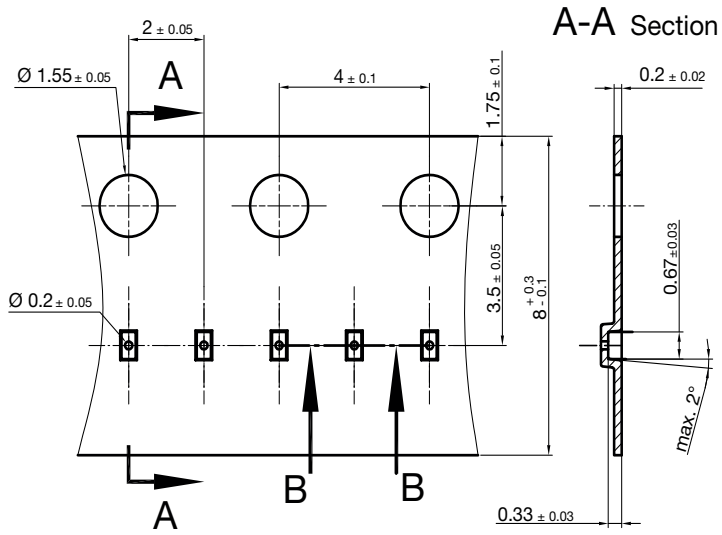
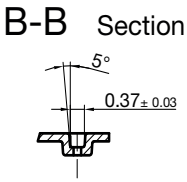
22825

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 +/-0.2 mm

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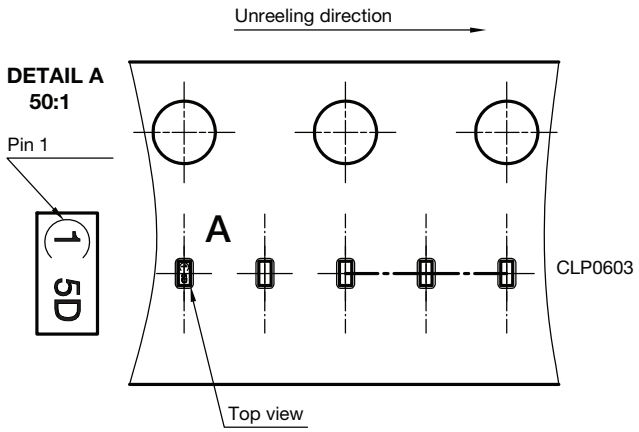
Document no. S8-V-3906.04-0025 (4)
Created - Date: 22. Nov. 2010

ORIENTATION IN CARRIER CLP0603



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

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