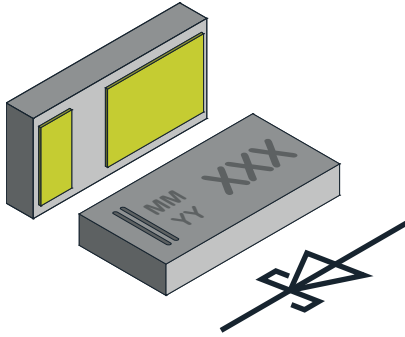


Schottky Rectifier Surface-Mount FlipKY[®] Gen 2



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. 510 mV at 2.0 A)
- Low reverse current (< 18 μ A at 10 V)
- Material categorization:
for definitions of compliance please see www.vishay.com/doc?99912



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

ABSOLUTE MAXIMUM RATINGS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage		V_{RRM}	40	V
Maximum average forward rectified current	$V_F = 0.5\text{ V}$, $R_{th} = 100\text{ K/W}$	$I_{F(AV)}$	2	A
Peak forward surge current	8.3 ms single half sine-wave	I_{FSM}	28	A
Power dissipation	On FR-4 board 50 mm x 50 mm 35 μ m Cu single sided	P_{tot}	1000	mW

THERMAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, 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 μ m Cu single sided	R_{thJA}	100	K/W
Maximum operating junction temperature		T_j	125	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	-65 to +150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL	TYP.	MAX.	UNIT
Leakage current	$V_R = 10\text{ V}$	I_R		18	μ A
	$V_R = 40\text{ V}$	I_R		150	μ A
Forward voltage	$I_F = 100\text{ mA}$	V_F	0.300	0.350	V
	$I_F = 1\text{ A}$	V_F	0.425	0.470	V
	$I_F = 2\text{ A}$	V_F	0.510	0.580	V
Diode capacitance	$V_R = 0\text{ V}$, $f = 1\text{ MHz}$	C_D	340		pF

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

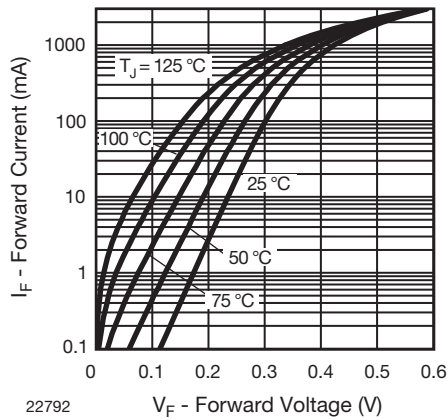


Fig. 1 - Typical Forward Current vs. Forward Voltage at Various Temperatures

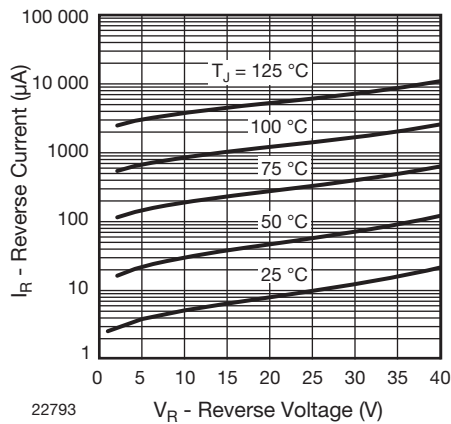


Fig. 2 - Typical Reverse Current vs. Reverse Voltage at Various Temperatures

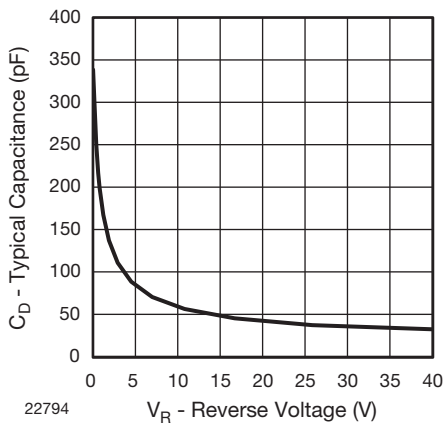
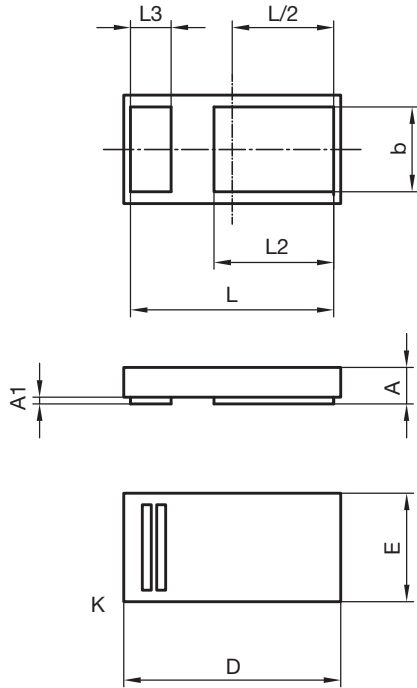


Fig. 3 - Typical Capacitance vs. Reverse Voltage



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



		A	A1	b	D	E	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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