

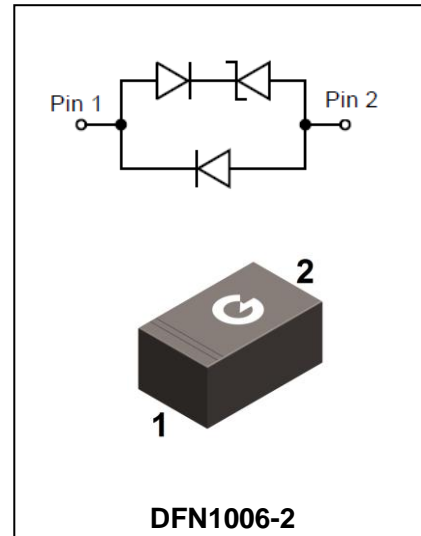
Ultralow Capacitance TVS Array

DLC05-L

FEATURES

- ESD / Transient protection of high speed data lines exceeding
 - IEC61000-4-2 (ESD): ± 20 kV (air / contact)
 - IEC61000-4-4 (EFT): 2.5 kV / 50 A (5/50 ns)
 - IEC61000-4-5 (surge): 3 A (8/20 μ s)
- Maximum working voltage: $V_{RWM} = 5.3$ V
- Ultra low capacitance: $CL = 0.4$ pF (typical)
- Low clamping voltage, low dynamic resistance
 $RDYN = 0.6 \Omega$ (typical)
- Pb-free (RoHS compliant) and halogen free package
- MSL 1

HF



APPLICATIONS

- USB 2.0, Mobile HDMI Link, MDDI, MIPI, etc
- HDMI, DisplayPort, DVI, Ethernet, Firewire, S-ATA

ORDERING INFORMATION

Type No.	Marking	Package Code
DLC05-L	C05	DFN1006-2

MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Limits	Unit
ESD (air / contact) discharge IEC61000-4-2	V_{ESD}	20	KV
Peak pulse current ($t_p = 8/20 \mu\text{s}$) IEC61000-4-5	I_{PP}	3	A
Operating temperature range	T_{OP}	-55+125	$^\circ\text{C}$
Storage temperature	T_{STG}	-65+150	$^\circ\text{C}$

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

PART NUMBER	Rated Stand-off Voltage V_{WM} VOLTS	Minimum Breakdown Voltage @ 1mA $V_{(BR)}$ VOLTS	MAX Clamping Voltage $V_C @ I_{PP}$ IEC61000-4-5	Maximum Leakage Current @ V_{WM} I_D μA	Typical Capacitance @ 0V, 1MHz C pF
DLC05-L	5.3	6.0	15V @ 3A	0.1	0.4

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

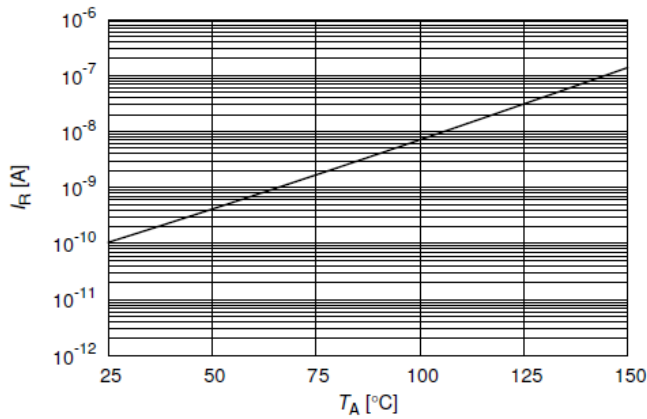


Figure 1 Reverse current $I_R = f(T_A)$, $V_R = 5.3$ V, from pin 1 to pin 2

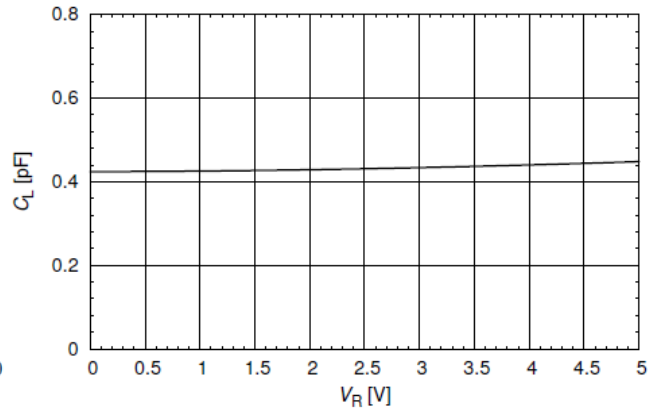


Figure 2 Line capacitance $C_L = f(V_R)$, $f = 1$ MHz, from pin 1 to pin 2

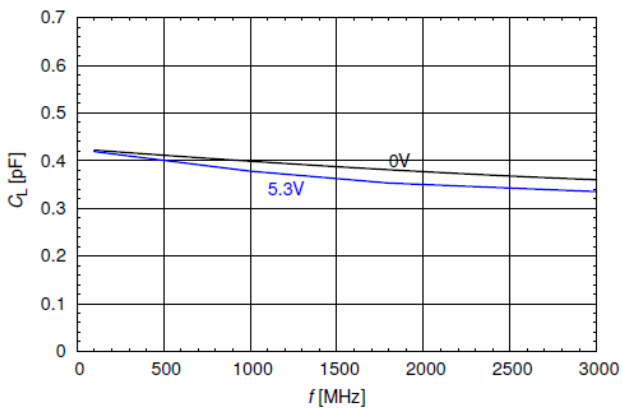


Figure 3 Line capacitance $C_L = f(f)$, from pin 1 to pin 2

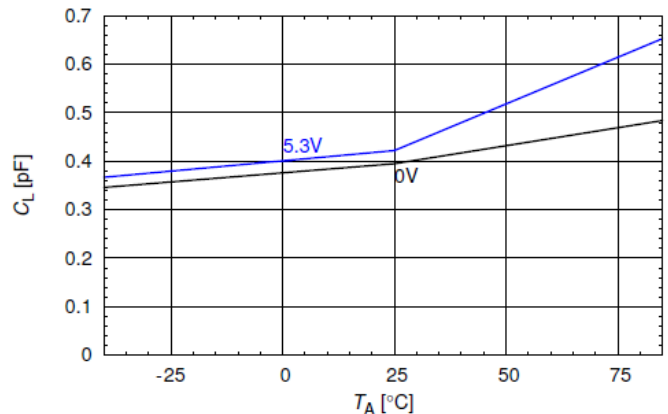


Figure 4 Line capacitance $C_L = f(T_A)$, from pin 1 to pin 2

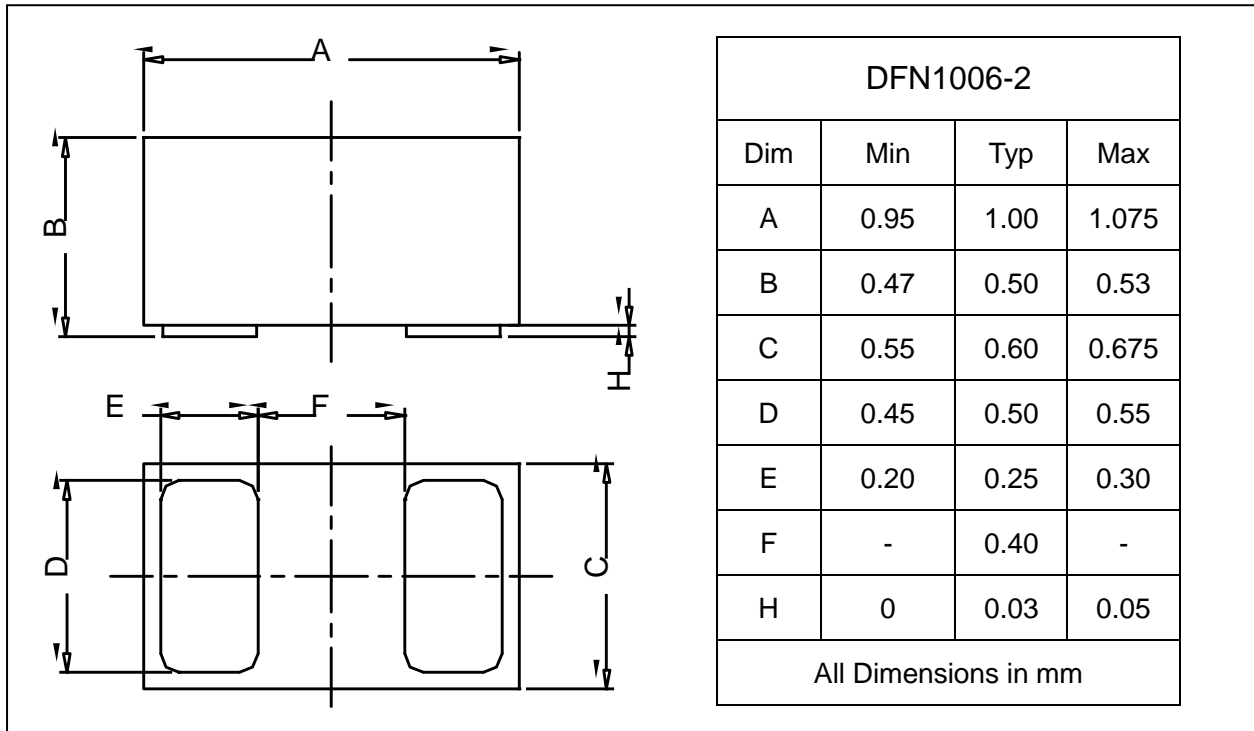
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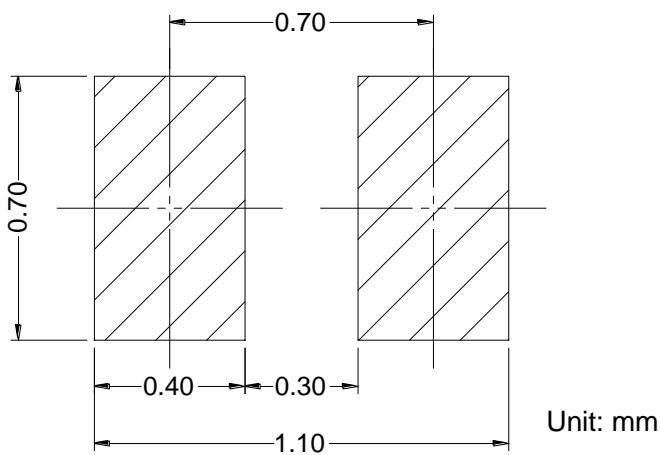
PACKAGE OUTLINE

Plastic surface mounted package

DFN1006-2



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
DLC05-L	DFN1006-2	10000 pcs / Tape & Reel