ESD4205M1Q-EVL
HI-SURGE ESD PROTECTION

VENKEL LTD.

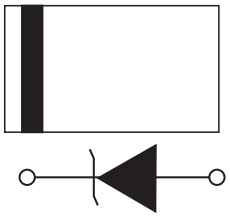
PART NUMBER	PACKAGE	VOLTAGE	CONFIGURATION
ESD4205M1Q-EVL E = 7" Embossed T&R (10,000)	DFN1006-2L	5V	SINGLE

FEATURES:

- IEC61000-4-2(ESD) : ±30kV Air, ±30kV Contact
- IEC61000-4-4(EFT) : 40A(5/50ns)
- IEC61000-4-5(Lightning) : 25A(8/20μS)
- Low leakage current, maximum of 1μA at rated voltage
- Low clamping voltage

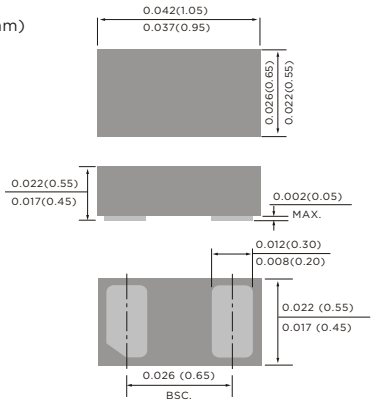
MECHANICAL DATA:

- Case: Molded plastic, DFN1006-2L
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00002 ounces, 0.0006 grams



DFN1006-2L

Units: inch (mm)



MAXIMUM RATINGS & THERMAL CHARACTERISTICS

T_A = 25˚C unless otherwise noted.

PARAMETER	SYMBOL	VALUE	UNITS
ESD IEC61000-4-2(Air) ESD IEC61000-4-2(Contact)	V_{ESD}	±30 ±30	kV
Operating Junction Temperature Range	T_J	-55 to +150	˚C
Storage Temperature Range	T_{STG}	-55 to +150	˚C

ENVIRONMENTAL INFORMATION

RoHS Status	10 of 10 Compliant
REACH Status	Compliant
Halogen Status	Halogen Free
Conflict Mineral Status	Conflict Mineral Free
Moisture Sensitivity Level (MSL)	1

ELECTRICAL CHARACTERISTICS

T_A = 25˚C unless otherwise noted.

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Reverse Stand-Off Voltage	V_{RWM}(1)	-	-	-	5	V
Reverse Breakdown Voltage	V_{BR}	I_{BR} = 1mA	6	-	7.5	V
Reverse Leakage Current	I_R	V_R=5V	-	-	1	μA
Clamping Voltage	V_{CL}	I_{PP} = 1A, t_P = 8/20μs	-	-	8	V
		I_{PP} = 25A, t_P = 8/20μs		-	13.5	
Clamping Voltage TLP	V_{CL}(2)	I_{PP} = 8A, t_P = 100ns	-	9.6	-	V
		I_{PP} = 16A, t_P = 100ns		12.2	-	
Dynamic Resistance	R_{DYN}	t_P = 100ns	-	0.33	-	Ω
Off State Junction Capacitance	C_J	0Vdc Bias f = 1MHz	-	-	250	pF

NOTES:

1. A transient suppressor is selected according to the working peak reverse voltage (V_{RWM}), which should be equal to or greater than the DC or continuous peak operation voltage level.
2. Testing using Transmission Line Pulse (TLP) conditions: Z0 = 50Ω, t_P = 100ns.

ELECTRICAL CHARACTERISTIC CURVES

Fig.1 Typical Peak Clamping Voltage

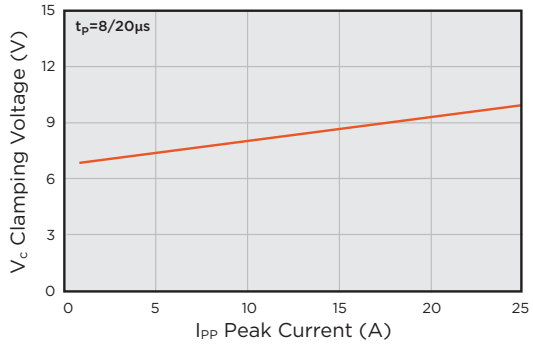


Fig.2 Pulse Waveform

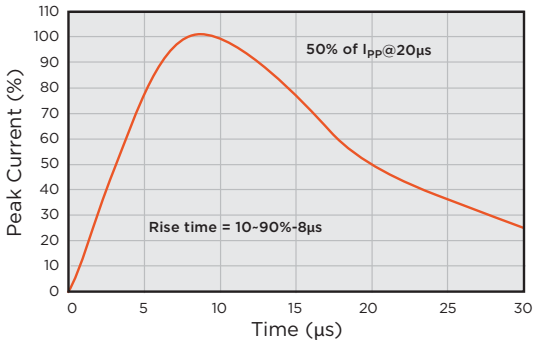


Fig.3 Typical Junction Capacitance

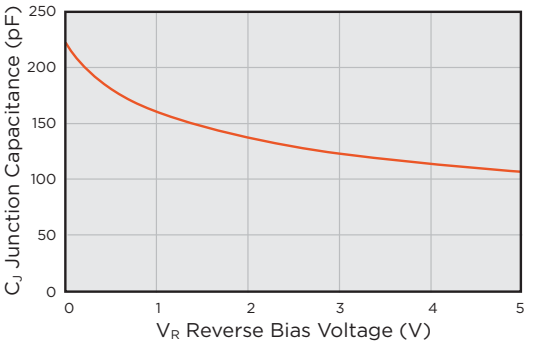
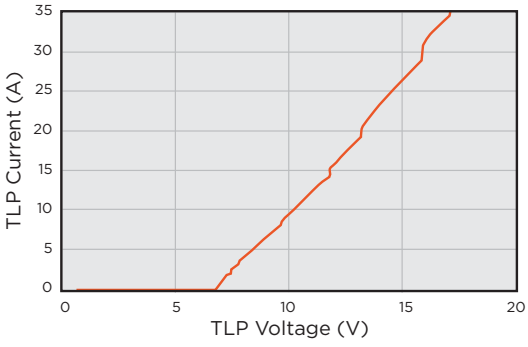


Fig.4 TLP Measurement



MOUNTING PAD LAYOUT

Units: inch (mm)