JEB05VCDF-AU Bi-directional TVS Diode for ESD Protection

Rev.1.0

DESCRIPTION

The JEB05VCDF is an ultra low capacitance transient voltage suppressor array, designed to p

MAIN APPLICATIONS

USB ports
Display port
Desktops, servers and notebooks
Digital visual interface (DVI)
Cellular phones
High definition multi-media interface (HDMI)

PROTECTION SOLUTION TO MEET

IEC61000-4-2 (ESD) ±25kV (air), ±25kV (contact)
IEC61000-4-4 (EFT) 40A (5/50ns)
IEC61000-4-5 (Lightning) 4A (8/20μs)

MECHANICAL CHARACTERISTICS

DFN1006-2L package
Pin Configuration(Top view)

ABSOLUTE MAXIMUM RATINGS (T_A=25ºC, RH=45%-75%, unless otherwise noted)

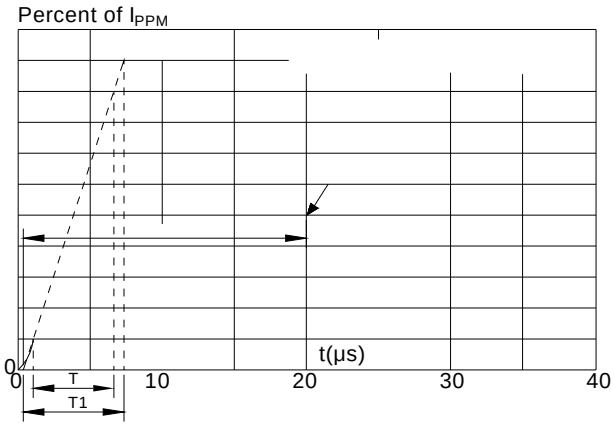
Parameter	Symbol	Value	Unit
Peak pulse power dissipation at 8/20μs waveform	P_{PP}	60	W
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	+/- 25 +/- 25	kV
Lead soldering temperature	T_L	260 (10 sec.)	Ɲ
Operating junction temperature range	T_J	-55 to +150	Ɲ
Storage temperature range	T_{STG}	-55 to +150	Ɲ

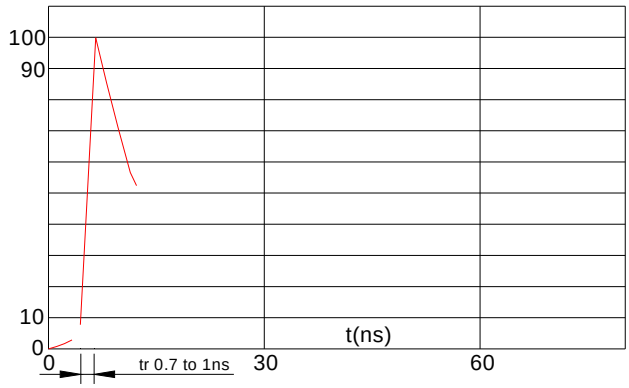
ELECTRICAL CHARACTERISTICS (T_A=25)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse working voltage	V_{RWM}				5.0	V
Reverse breakdown voltage	V_{BR}	I_T=1mA	6.0			V
Reverse leakage current	I_R	V_{RWM}=5V			0.1	μA
Peak pulse current	I_{PP}	t_P=8/20μs			4	A
Clamping voltage	V_C	I_{PP}=1A, t_P=8/20μs		9.5	10.5	V
		I_{PP}=3A, t_P=8/20μs		10	12.5	V
		I_{PP}=4A, t_P=8/20μs		12.5	15	V
Junction capacitance	C_J	V_{RWM}=0V, f=1MHz		0.35	0.55	pF

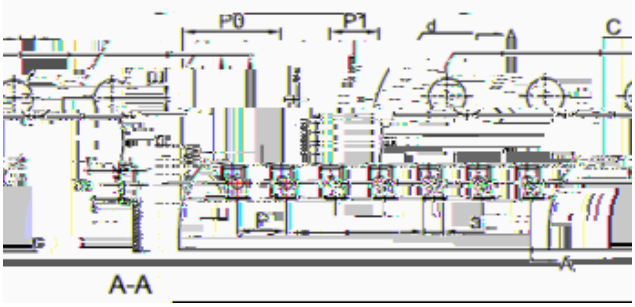
RATINGS AND V-I CHARACTERISTICS CURVES (T_A=25ºC, unless otherwise noted)

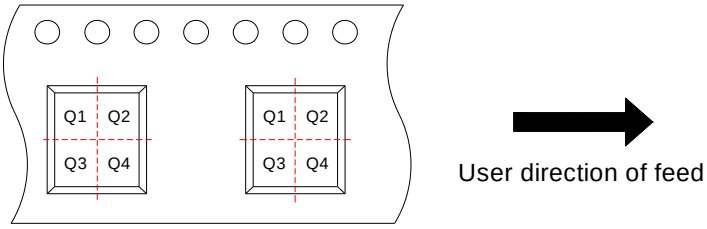
FIG.2: Pulse waveform (8/20μs)




100
90
10
0
0
tr 0.7 to 1ns
30
60
t(ns)

TAPE AND REEL INFORMATION-DFN1006-2L





User direction of feed

Pin 1 quadrant:Q1&Q2

Symbol	Millimeters	Inches
	Typ.	Typ.
a	0.66	0.026
B	1.15	0.045
C	0.66	0.026
d	Φ1.50	Φ0.059
E	1.75	0.069
F	3.50	0.138
P0	4.00	0.157
P	2.00	0.079
P1	2.00	0.079
W	8.00	0.315
D	Φ178	Φ7.008
D1	54.40	2.142
D2	13.00	0.512
G	R78.00	R3.071
H	R25.60	R1.008
I	R6.50	R0.256
W1	9	Ṇ.315

ORDERING INFORMATION

PART No.	PACKAGE TYPE	QUANTITY(PCS) REEL	DESCIPTION
JEB05VCDF-AU	DFN1006-2L	10,000	7 inch reel pack

MARKING CODE

Part Number	Marking Code
JEB05VCDF-AU	5T

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