

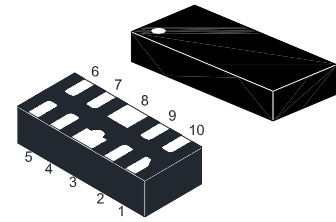
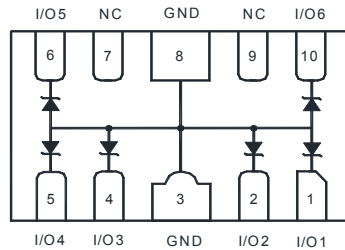
ESD0501MP

Transient Voltage Suppressors

for ESD Protection

Features

- Excellent clamping capability
- Low leakage
- Fast response time



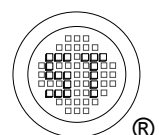
1. I/O1 2. I/O2 3. GND 4. I/O3 5. I/O4
6. I/O5 7. NC 8. GND 9. NC 10. I/O6
Marking Code: "0501"
DFN2510-10 Plastic package

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

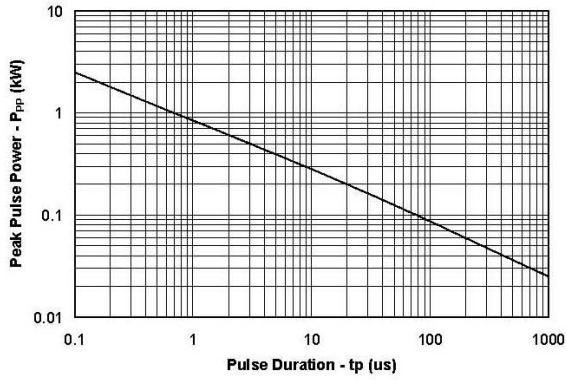
Parameter	Symbol	Value	Unit
Reverse Stand-Off Voltage	V_R	5	V
Peak Pulse Current ($t_p = 8/20\text{ }\mu\text{s}$)	I_{PP}	16	A
IEC61000-4-2 (ESD) Air Contact	V_{PP}	± 20 ± 15	KV
Peak Pulse Power ($t_p = 8/20\text{ }\mu\text{s}$)	P_{PK}	200	W
Operation Temperature Range	T_j	- 55 to + 125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

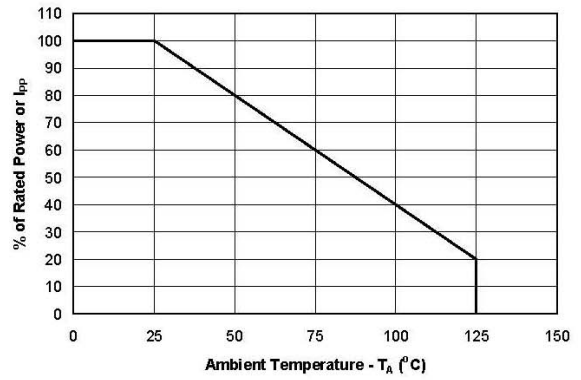
Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 1\text{ mA}$	$V_{(BR)R}$	6	-	V
Forward Voltage at $I_F = 10\text{ mA}$	V_F	-	0.9	V
Reverse Current at $V_R = 5\text{ V}$	I_R	-	1	μA
Clamping Voltage at $I_{PP} = 5\text{ A}$, $t_p = 8/20\text{ }\mu\text{s}$ at $I_{PP} = 16\text{ A}$, $t_p = 8/20\text{ }\mu\text{s}$	V_C	-	9.8 12.5	V
Junction Capacitance at $V_R = 0\text{ V}$, $f = 1\text{ MHz}$	C_j	-	160	pF



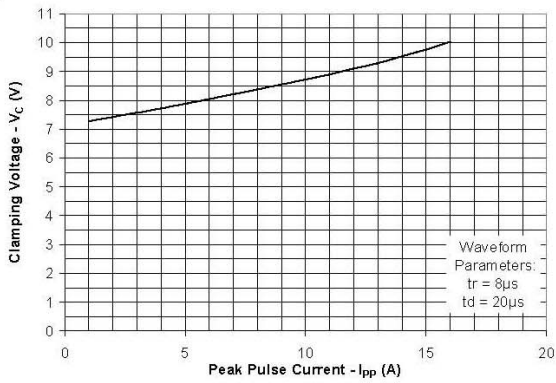
Non-Repetitive Peak Pulse Power vs. Pulse Time



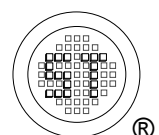
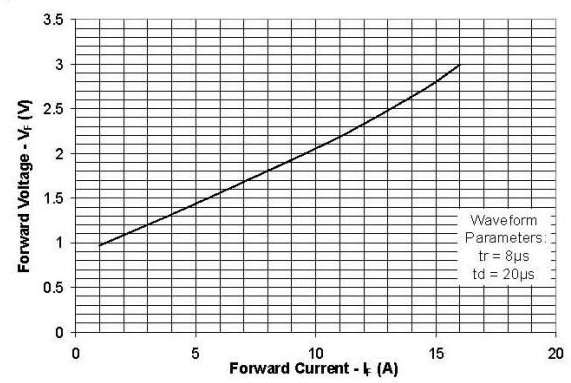
Power Derating Curve



Clamping Voltage vs. Peak Pulse Current



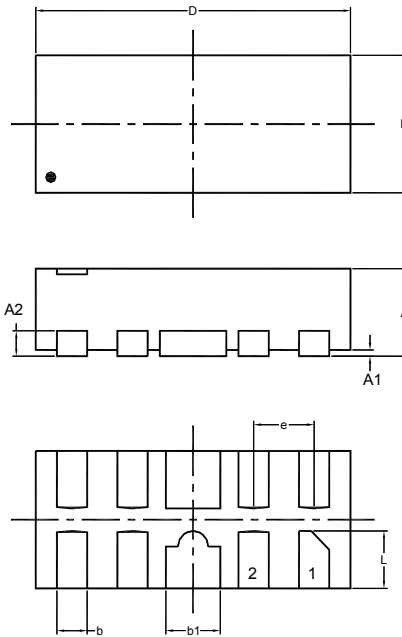
Forward Voltage vs. Forward Current



ESD0501MP

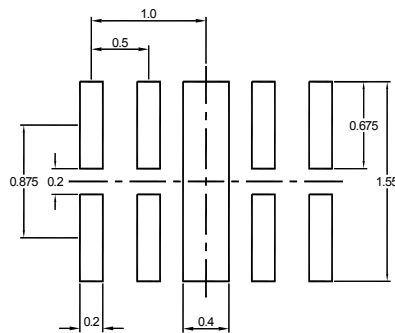
Package Outline Dimensions (Units: mm)

DFN2510-10



UNIT	A	A1	A2	b	b1	D	E	e	L
mm	0.46	0	0.13	0.15	0.35	2.40	0.90	0.50	0.30
	0.51	0.05		0.25	0.45	2.60	1.10		0.425

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
DFN2510-10	8	4 ± 0.1	0.157 ± 0.004	178	7	4,000

