



Micro Commercial Components



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ESDLC0524DFN10

5 Volts ESD Protection Device

Features

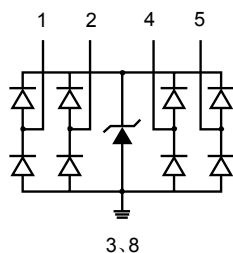
- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Small package saves board space
- Protects four(4) I/O lines
- Low clamping voltage
- 150W peak pulse power (tp=8/20us)

Maximum Ratings

- Operating Junction & Storage Temperature: -55°C to +150°C

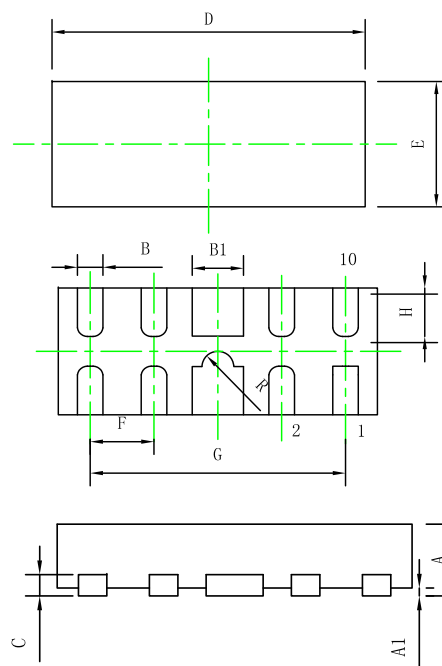
Parameter	Symbol	Limits	unit
IEC61000-4-2(ESD) Air Contact		± 17 ± 12	KV
IEC61000-4-5 (Surge): @ 8/20us		5	A
Peak Pulse Power: @ 8/20us	Ppp	150	W

Pin Configuration



Pin	Identification
1,2,4,5	Input lines
6,7,9,10	Output Lines
3,8	Ground

DFN-10



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.016	.020	0.40	0.50	
A1	---	.002	---	0.05	
B	.006	.010	0.15	0.25	
B1	.014	.018	0.35	0.45	
C	.004	.008	0.10	0.20	
D	.095	.102	2.40	2.60	
E	.035	.043	0.90	1.10	
F	.020BSC		0.50BSC		
G	.079BSC		2.00BSC		
H	.012	.017	0.30	0.425	
R	.005	.005	0.12	0.13	

Electrical characteristics per line@25°C(unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse stand-off voltage	V_{RWM}	Any I/O Pin to GND			5	V
Reverse Breakdown voltage	V_{BR}	$I_Z=1mA$ Any I/O Pin to GND	6.1		8.5	V
Reverse Leakage Current	I_R	$V_R=5V$ Any I/O Pins to GND			0.9	μA
Forward Voltage	V_F	$I_F=15mA$ GND to any I/O Pins			1.15	V
Junction Capacitance	$C_{I/O-GND}$ $C_{I/O-I/O}$	$V_R=0V$ $f = 1MHz$			0.8 0.4	pF
Clamping voltage	V_C	$I_{pp}=1A$ $t_p=8/20$ us			15	V
Clamping voltage	V_C	$I_{pp}=5A$ $t_p=8/20$ us			28	V

Typical Characteristics

FIGURE 1
Non-repetitive Peak pulse power V.S pulse time

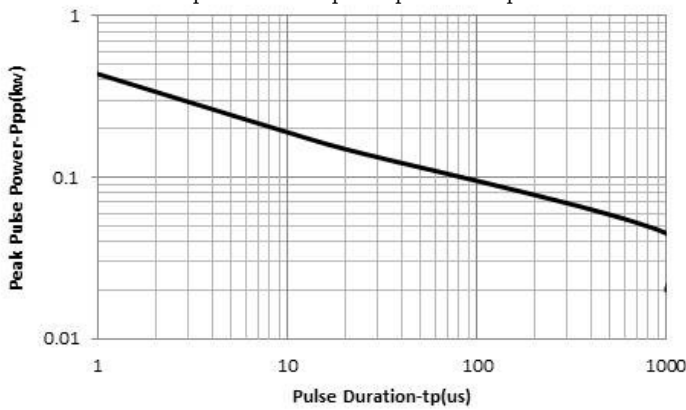
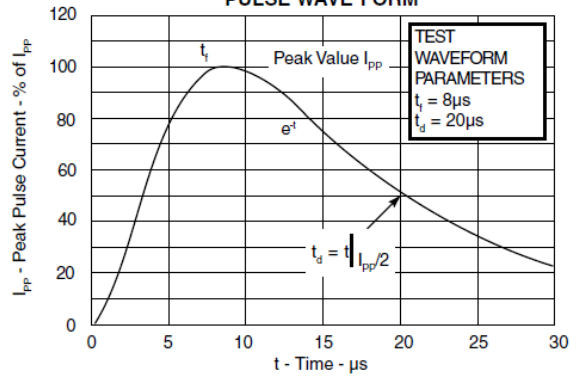


FIGURE 2
PULSE WAVE FORM



Typical Characteristics

FIGURE 3
Power Derating Curve

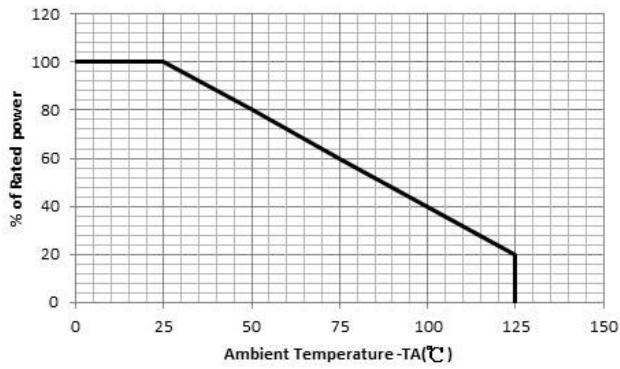


FIGURE 4
Normalized Capacitance vs.Reverse Voltage

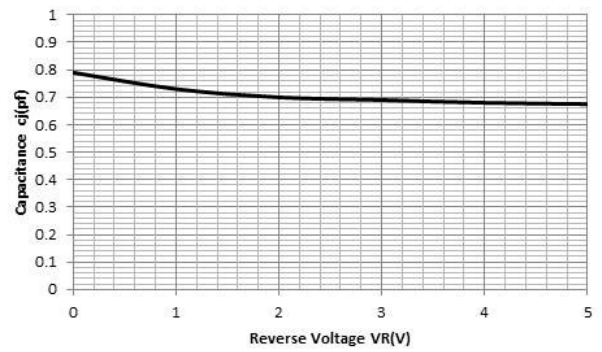


FIGURE 5
Forward Voltage VF Map GND to I/O pins

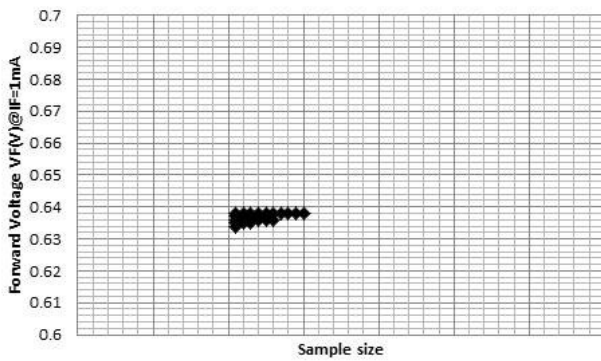
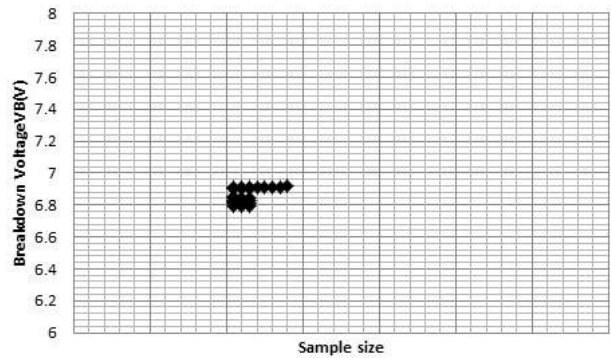


FIGURE 6
Breakdown Voltage VB Map Any I/OPin to GND.





Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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