

Features

- Bi-Directional ESD Protection of One Line
- Low Channel Input Capacitance
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

- Operating Junction Temperature Range: -65°C to +150°C
- Storage Temperature Range: -65°C to +150°C
- Thermal Resistance: 500°C/W Junction to Ambient

MCC Part Number	Device Marking
ESD0512LB	25

IEC61000-4-2(ESD)	Air Contact	±30KV ±30KV
Peak Pulse Current(8/20μs)	I _{PP}	10A
Peak Pulse Power (8/20us)	P _{PK}	200W
Power Dissipation	P _D	250mW

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

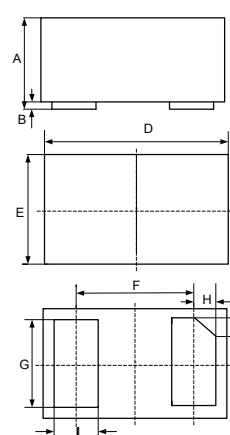
Circuit and Pin Schematic



Line Denotes Pin 1

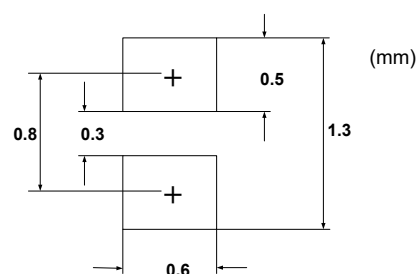
ESD Protection Device

DFN1006-2



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.013	0.022	0.34	0.55	
B	0.000	0.002	0.00	0.05	
D	0.037	0.043	0.95	1.08	
E	0.022	0.027	0.55	0.68	
F	0.026		0.650		TYP.
G	0.016	0.024	0.40	0.60	
H	0.003	0.007	0.07	0.17	
L	0.008	0.012	0.20	0.30	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}	Pin 1 to 2			12	V
		Pin 2 to 1			5	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$, Pin 1 to 2	13		17	V
		$I_T=1mA$, Pin 2 to 1	6		10	V
Reverse Leakage Current	I_R	$V_{RWM}=12V$, Pin 1 to 2			0.2	μA
		$V_{RWM}=5V$, Pin 2 to 1			0.2	μA
Clamping Voltage	V_C	$I_{PP}=10A$, $t_p=8/20\mu s$, Pin 1 to 2		20		V
Clamping Voltage	V_C	$I_{PP}=10A$, $t_p=8/20\mu s$, Pin 2 to 1		12		V
Junction Capacitance	C_J	$V_R=0V$, $f=1MHz$		30	40	pF

Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 10Kpcs/Reel

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