



THE DATASHEET OF ESD5V0LP-TP





Micro Commercial Components
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ESD5V0LP

5.0 Volts ESD Protection Device

Features

- For sensitive ESD protection
- Excellent clamping capability
- Low leakage
- ESD rating of class 3(>16KV)per Human Body Mode
- For space saving application
- Fast response, response time less than 1ns.
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

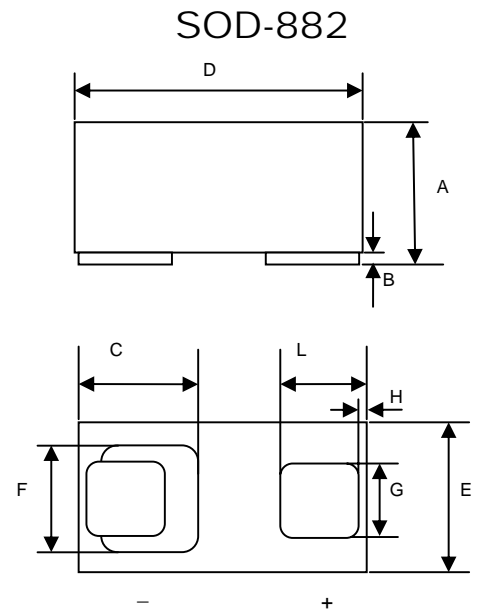
Maximum Ratings

- Operating Junction & Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance: 1250°C/W Junction To Ambient

Parameter	Symbol	Limits	unit
IEC61000-4-2(ESD) Air Contact		±30 ±30	KV
ESD Voltage per human body mode		16	KV
Power Dissipation	Pd	100	mw

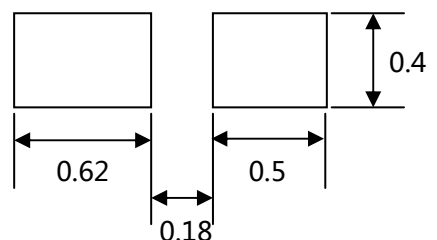


Internal Structure



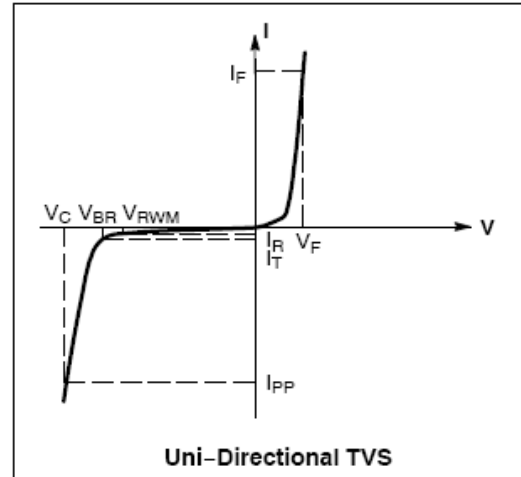
DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	0.018	0.022	0.45	0.55	
B	0.000	0.003	0.01	0.07	
C	0.019REF.		0.470REF.		
D	0.037	0.041	0.95	1.05	
E	0.022	0.026	0.55	0.65	
F	0.017 REF.		0.420 REF.		
G	0.011	0.015	0.27	0.37	
H	0.001 REF.		0.030 REF.		
L	0.013	0.017	0.34	0.44	

Suggested Solder Pad Layout



ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
P_{pk}	Peak Power Dissipation
C	Max. Capacitance @ $V_R=0$ and $f=1\text{MHz}$

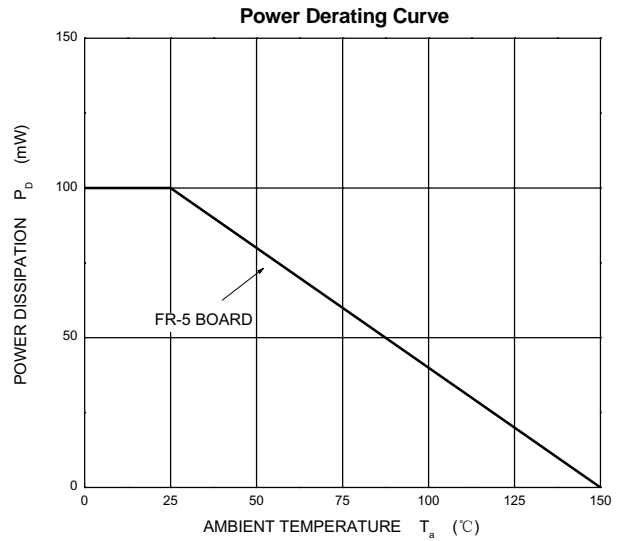
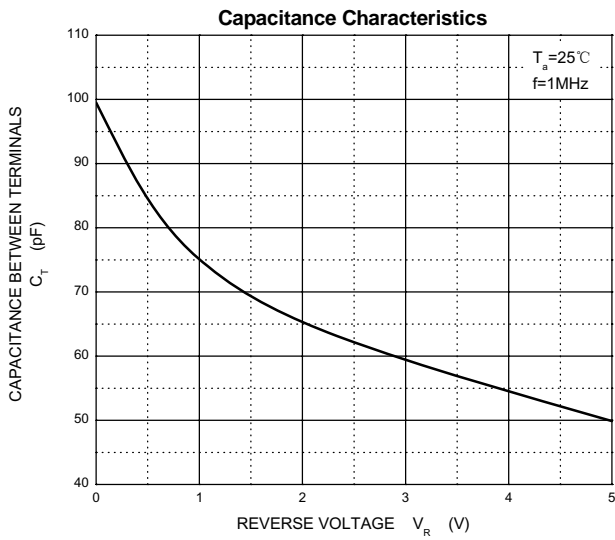
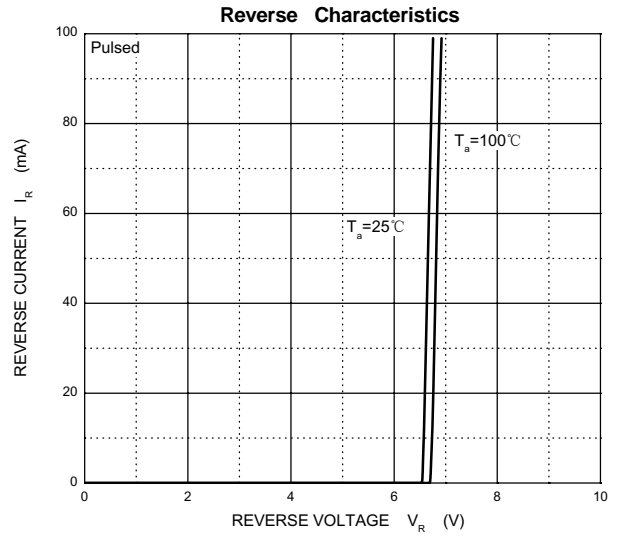
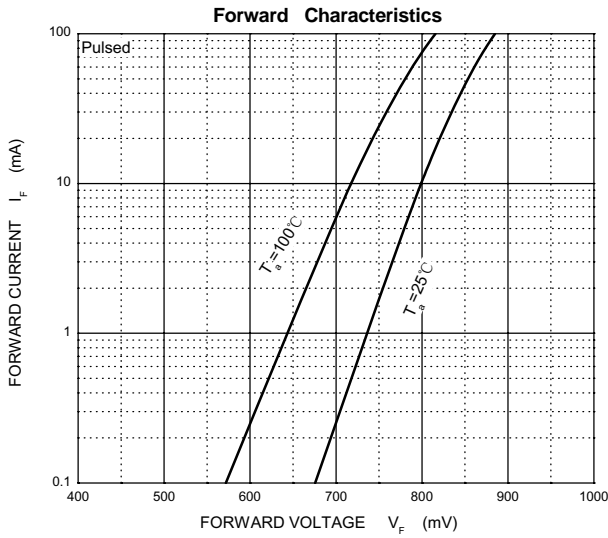


ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$ unless otherwise noted)

Device	Device Marking	V_{RWM}	I_R (μA)	V_{BR} (V) @ I_T		I_T	P_{pk} (W)	I_{PP} (A)	V_C (V)	C (pF)
		(V)	@ V_{RWM}	(Note 1)			(8x20 us)		@Max I_{PP}	
		Max	Max	Min	Max	mA	Typ	Max	Max	Typ
ESD5V0LP	B	5.0	1.0	6.2	7.3	1.0	107	8.7	12.3	65

Note: 1. V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25°C .

Typical Characteristics





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Ordering Information :

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

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

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