

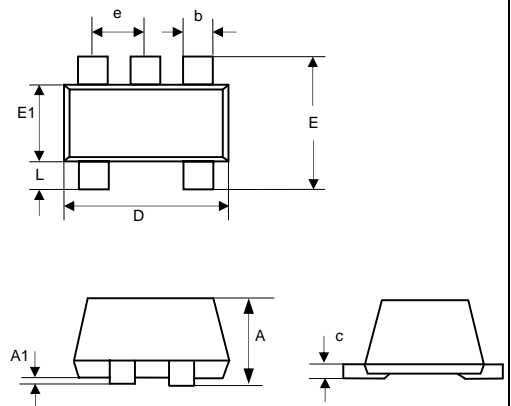


Micro Commercial Components
 20736 Marilla Street Chatsworth
 Chatsworth, CA 91311
 Phone: (818) 701-4933
 Fax: (818) 701-4939

ESDLC5V0L4

5 Volts ESD Protection Device

SOT-553

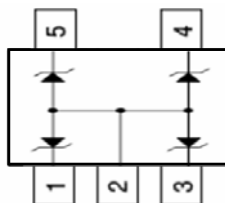


DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	.021	.024	.525	.60
A1	.00	.002	.00	.05
e	.018	.022	.45	.55
c	.004	.006	.09	.16
D	.059	.067	1.5	1.7
b	.007	.011	.17	.27
E1	.043	.051	1.1	1.3
E	.059	.067	1.5	1.7
L	.004	.012	.100	.300

Features

- Four Separate Unidirectional Configurations for Protection
- Excellent clamping capability
- Low Leakage Current <math><1\mu A @ 5\text{ Volts}</math>
- Small Package
- Low Capacitance
- Complies to USB 1.1 Low Speed & Full Speed Specifications
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

Pin Configuration



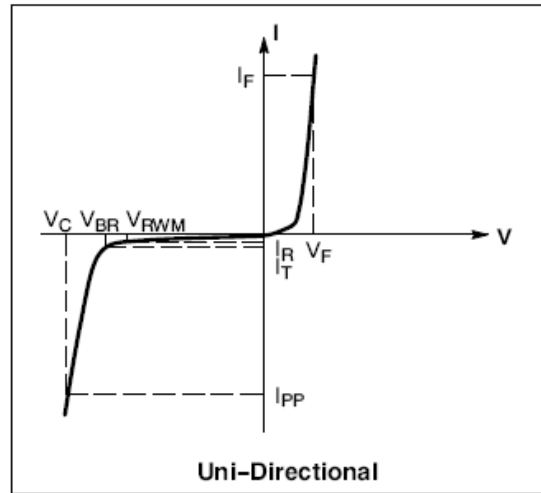
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ELECTRICAL CHARACTERISTICS (Ta = 25°C unless otherwise noted)

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



Maximum Ratings (Ta=25°C unless otherwise noted)

Parameter	Symbol	Limit	Unit
Peak Power Dissipation @ 8 X 20 μ s @ $T_A = 25^\circ\text{C}$ (Note 1)	P_{pk}	20	W
Steady State Power -- 1 Diode (Note 2)	P_D	150	mW
Thermal Resistance Junction-to-Ambient Above 25 °C, derate	$R_{\theta JA}$	833	$^\circ\text{C/W}$
Maximum Junction Temperature	T_{jmax}	150	$^\circ\text{C}$
Operating Junction and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	$^\circ\text{C}$
Lead Solder Temperature (10 Seconds Duration)	T_L	260	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (Ta = 25°C unless otherwise noted, $V_F = 0.9$ V Max. @ $I_F = 10$ mA for all types)

Device	Device Marking	Breakdown voltage V_{BR} @ 1mA (Volts)			Leakage current I_{RM} @ V_{RM}		V_C Max @ I_{PP}		Capacitance @ $V_R=0$ V Bias (pF) (Note 3)	Capacitance @ $V_R=3$ V Bias (pF) (Note 3)
		Min	Mon	Max	V_{RWM}	I_{RWM} (μ A)	V_C (V)	I_{PP} (A)	Max	Max
ESDLC5V0L4	5H	6.0	6.5	7.2	5.0	1.0	11	1.6	14	11.5

1. Non-repetitive current per Figure 1.
2. Only 1 diode under power. For all 4 diodes under power, P_D will be 25%. Mounted on FR-4 board with min pad.
3. Capacitance of one diode at $f = 1$ MHz, $T_a = 25^\circ\text{C}$



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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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