

Features

- For Sensitive ESD Protection
- Excellent Clamping Capability
- Low Leakage
- Fast Response, Response Time Less than 1ns
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

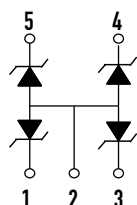
- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Maximum Thermal Resistance: 833°C/W Junction to Ambient

MCC Part Number	Device Marking
ESD5V0L4	42

IEC61000-4-2(ESD)	Air Contact	±30KV ±30KV
JESD22-A114-B(ESD)	Human Body Machine	16KV 0.4KV
Peak Pulse Power (8/20us)	P _{PK}	200W
Power Dissipation ⁽¹⁾	P _D	150mW

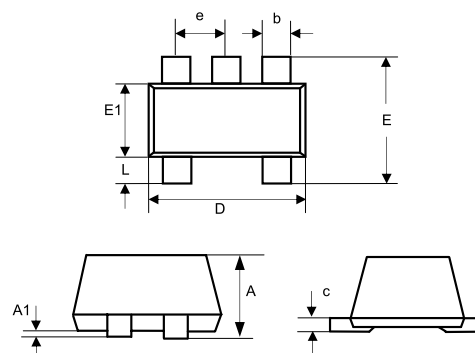
Note 1: Only 1 Diode under Power. For All 4 Diodes under Power, PD Will Be 25%. Mounted on FR-4 Board with Min Pad.

Internal Structure



ESD Protection Device

SOT-553



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.021	0.024	0.525	0.60	
A1	0.000	0.002	0.00	0.05	
e	0.018	0.022	0.45	0.55	
c	0.004	0.006	0.09	0.16	
D	0.059	0.067	1.50	1.70	
b	0.007	0.011	0.17	0.27	
E1	0.040	0.051	1.10	1.30	
E	0.059	0.067	1.50	1.70	
L	0.004	0.012	0.10	0.30	

Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	6		7.2	V
Reverse Leakage Current	I_R	$V_{RWM} = 5\text{V}$			5	μA
Forward Voltage	V_F	$I_F = 200\text{mA}$			1.25	V
Clamping Voltage	V_C	$I_{PP} = 1\text{A}$, $t_P = 8/20\mu\text{s}$			10.5	V
Clamping Voltage	V_C	$I_{PP} = 5\text{A}$, $t_P = 8/20\mu\text{s}$			13.5	V
Junction Capacitance	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$			80	pF

Curve Characteristics

Fig. 1 - 8 X 20 μ s Pulse Waveform

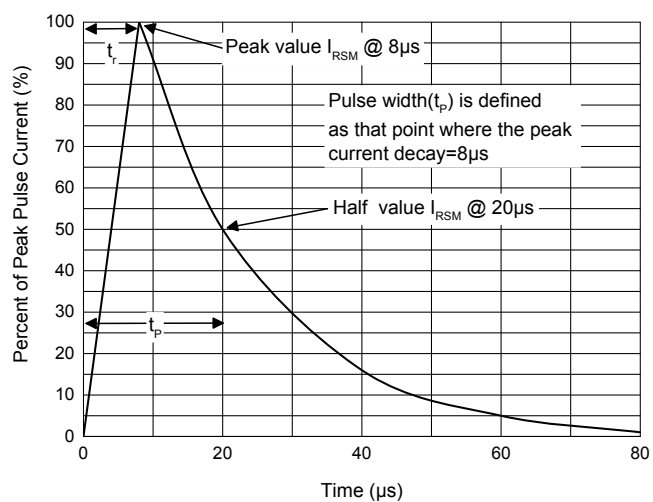


Fig. 2 - Pulse Derating Curve

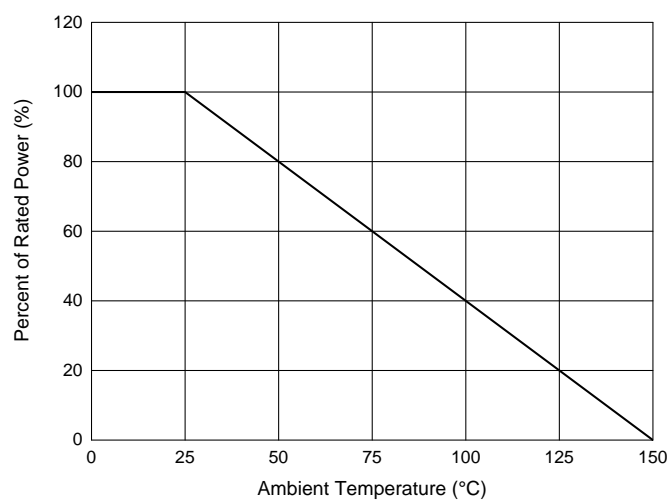
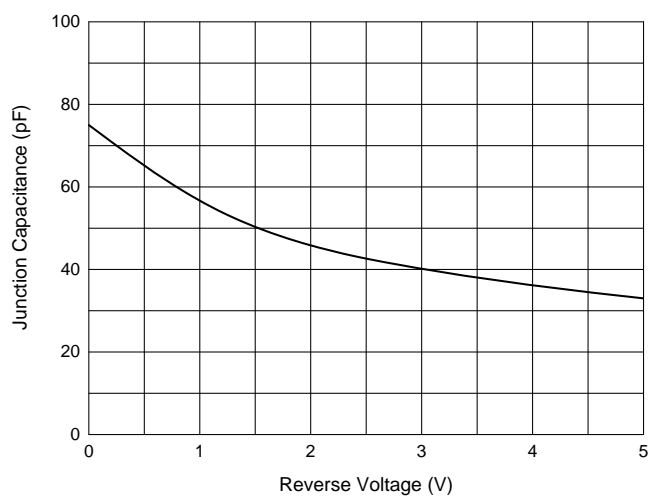


Fig. 4 - Capacitance Characteristics



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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