TECH PUBLIC
台舟电子

NUP4301MR6T1G

LOW CAPACITANCE DIODE ARRAY

www.sot23.com.tw

Features

- Ultra low capacitance: 1 pF Max I/O to GND
- Ultra low leakage: nA level
- Low operating voltage: 70V
- Uni-directional TVS Diode Array
- Low clamping voltage
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge: ±15kV
    - Contact discharge: ±8 kV
  - IEC61000-4-4 (EFT) 40A (5/50ns)
- ROHS Compliant

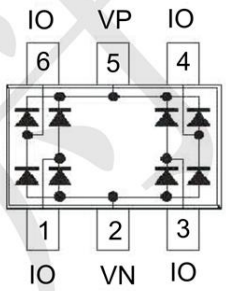
Mechanical Characteristics

- Package: SOT23-6
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020

Applications

- USB 2.0 and Firewire Port Protection
- LAN / WLAN Access Point terminals
- Video Signal Line Protection

Dimensions and Pin Configuration



SOT23-6

Marking: 64.*

Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

PARAMETER	SYMBOL	VALUE	UNITS
Rectifier Repetitive Peak Reverse Voltage	V_{RRM}	70	V
ESD per IEC61000-4-2 (Air) ESD per IEC61000-4-2 (Contact)	V_{ESD}	>15 >8	kV
Surge Non Repetitive Forward Current-Rectangular waveform tp=2.5μs tp=1ms tp=100ms	I_{FRM}	 6 2 1	A
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150	°C

Electrical Characteristics (TA=25°C unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Peak Reverse Stand-Off Voltage	V_{RRM}		-	-	70	V
Reverse Breakdown Voltage	V_{BR}	I_{BR} =50μA	85	-	-	V
Reverse Leakage Current	I_R	V_{RWM} =70V	-	0.1	1	μA
Off State Junction Capacitance	C_J	0Vdc, f=1MHz between I/O lines and GND	-	-	1	pF
Off State Junction Capacitance	C_J	0Vdc, f=1MHz between I/O lines	-	-	0.9	pF

Typical Performance Characteristics (T_A=25°C unless otherwise Specified)

Fig1. 8/20μs Pulse Waveform

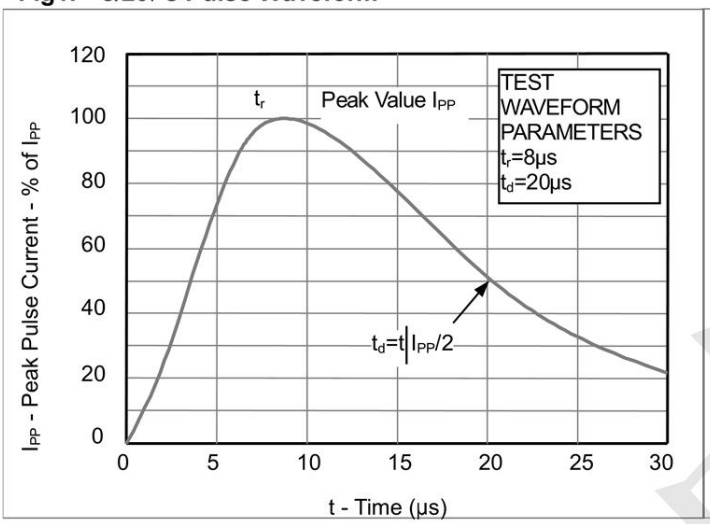


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

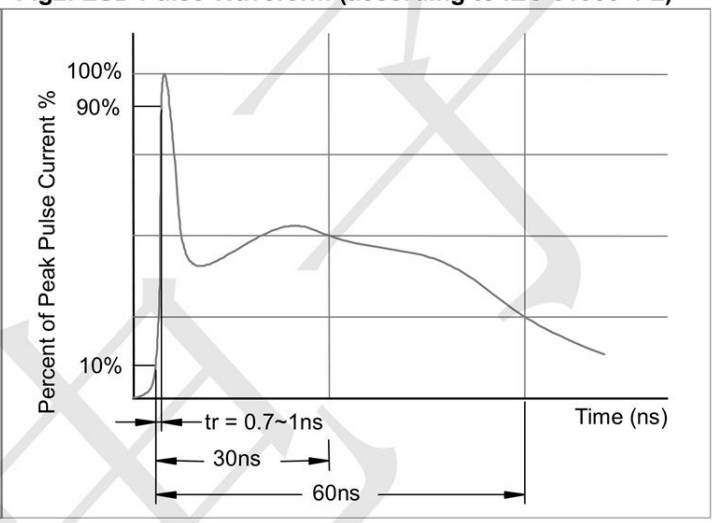
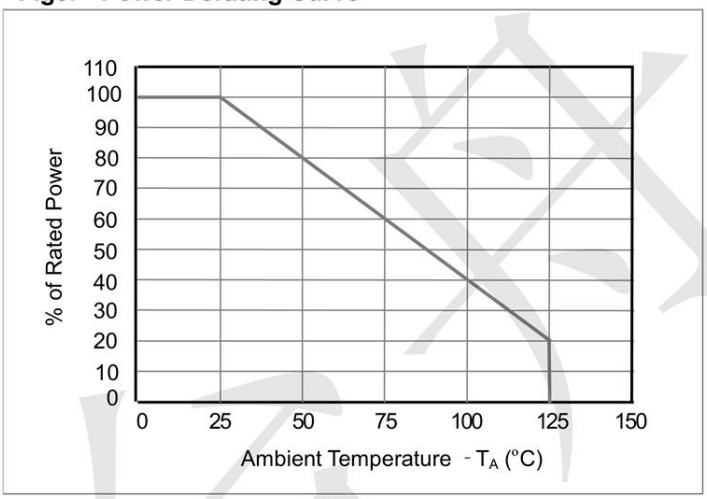
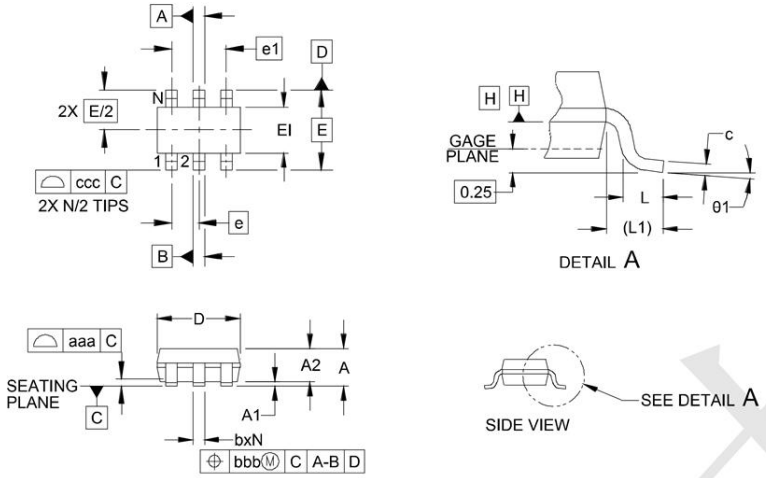


Fig3. Power Derating Curve

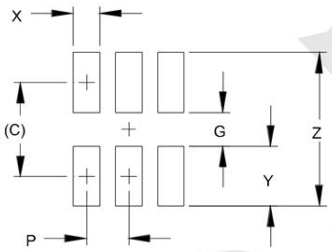


Outline Drawing - SOT23-6



DIM	DIMENSIONS					
	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	.035	-	.057	0.90	-	1.45
A1	.000	-	.006	0.00	-	0.15
A2	.035	.045	.051	.90	1.15	1.30
b	.010	-	.020	0.25	-	0.50
c	.003	-	.009	0.08	-	0.22
D	.110	.114	.118	2.80	2.90	3.00
E1	.060	.063	.069	1.50	1.60	1.75
E	.110 BSC			2.80 BSC		
e	.037 BSC			0.95 BSC		
e1	.075 BSC			1.90 BSC		
L	.012	.018	.024	0.30	0.45	0.60
L1	(.024)			(0.60)		
N	6			6		
θ1	0°	-	10°	0°	-	10°
aaa	.004			0.10		
bbb	.008			0.20		
ccc	.008			0.20		

Land Pattern - SOT23-6



DIMENSIONS		
DIM	INCHES	MILLIMETERS
C	(.098)	(2.50)
G	.055	1.40
P	.037	0.95
X	.024	0.60
Y	.043	1.10
Z	.141	3.60

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TECH PUBLIC:

TPD1213A-02SM TPS7B6950DBVR-TP SI3932DV TPS3809L30DBVR-TP TPWSB5557Z LTH7 QM3003J-TP TPDMG6602SVT TPGC12C-1 TPZXMP3A13FTA TPB1A30-123 TPESD0504S6-A DDTA143ZCA FDC6301N-TP FDMS7670AS-TP TPADM809SAKSZ TPESD0402G08V TPESD5311N TPZVN3320FTA BV15C DMP6350S SN7002W BSN20W IRFR2405TRPBF-TP TPAPX809S-31SA TPB05A40-323 TPSPX3819M5-L-3-3 ESD5B5.0ST1G-P TPADM809LAKSZ TPFMMT493