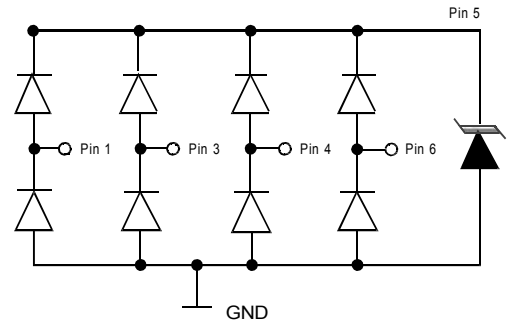


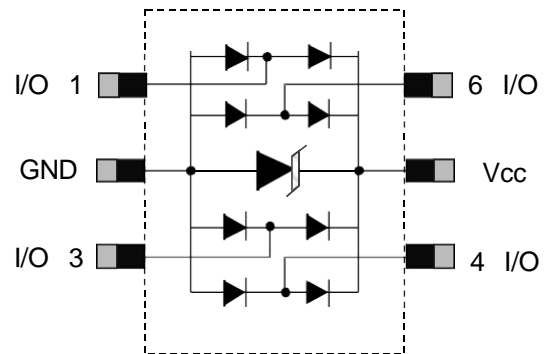
### Features

- 60Watts peak pulse power ( $t_p = 8/20\mu s$ )
- Low clamping voltage
- Low leakage current
- Low capacitance ( $C_j=0.3pF$  typ. IO to IO)
- Protection one data/power line to:
- IEC 61000-4-2  $\pm 12kV$  contact  $\pm 15kV$  air
- IEC 61000-4-4 (EFT) 40A(5/50ns)
- IEC 61000-4-5 (Lightning) 3.5A(8/20 $\mu s$ )



### Applications

- Ethernet
- Digital Visual Interface (DVI)
- USB2.0
- Notebook and PC Computers



**Absolute Maximum Rating**

Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p=8/20\mu s$ )	$P_{PP}$	60	Watts
Peak Pulse Current ( $t_p=8/20\mu s$ )(note1)	$I_{pp}$	3.5	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	$V_{ESD}$	15 12	kV
Lead Soldering Temperature	$T_L$	260(10seconds)	$^{\circ}C$
Junction Temperature	$T_J$	-55 to + 125	$^{\circ}C$
Storage Temperature	$T_{stg}$	-55 to + 125	$^{\circ}C$

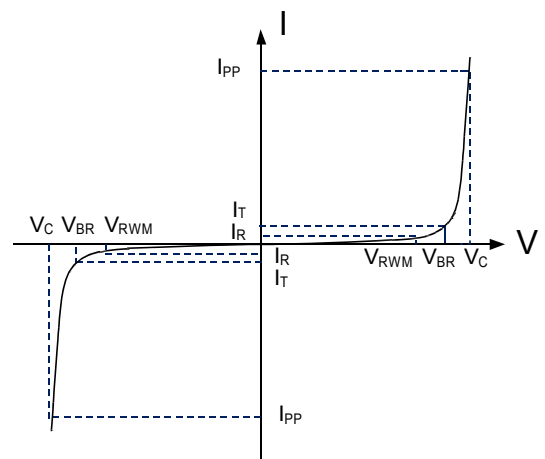
**Electrical Characteristics**

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	$V_{RWM}$				5.0	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	6	7.8	8.5	V
Reverse Leakage Current	$I_R$	$V_{RWM}=5V, T=25^{\circ}C$		50	500	nA
Peak Pulse Current	$I_{PP}$	$t_p=8/20\mu s$			3.5	A
Clamping Voltage	$V_C$	$I_{PP}=3.5A, t_p=8/20\mu s$		10	13	V
Junction Capacitance	$C_j$	$V_R=0V, f=1MHz$ IO to IO		0.2	0.25	pF
		$V_R=0V, f=1MHz$ IO to GND		0.36	0.5	

**Electrical Parameters (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

Note: 8/20μs pulse waveform.



## Typical Characteristic Curves

Fig.1 Peak Pulse Power Rating Curve

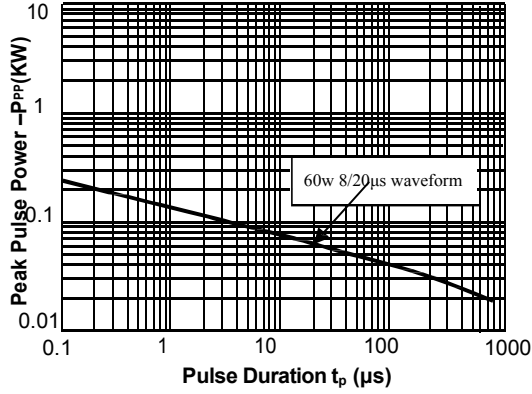


Fig.2 Pulse Derating Curve

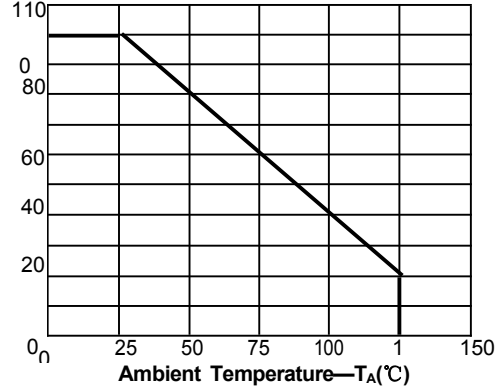


Fig.3 PulseWaveform-8/20 $\mu s$

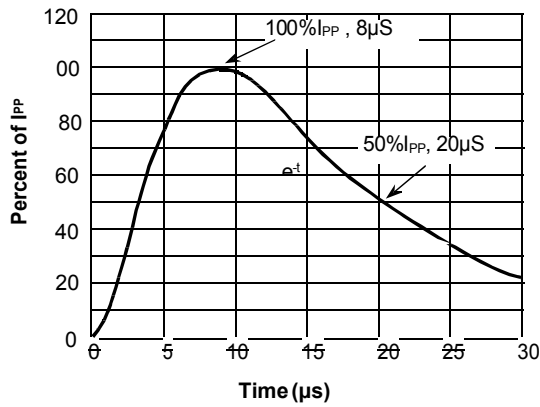


Fig.4 PulseWaveform-ESD(IEC61000-4-2)

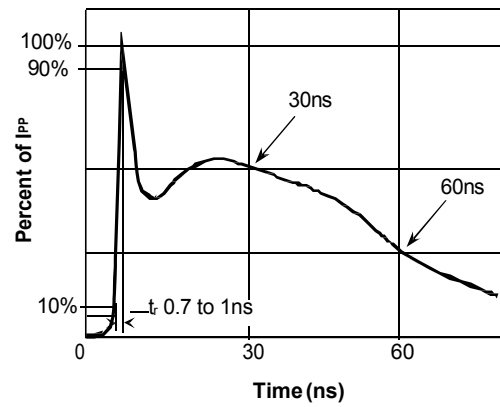
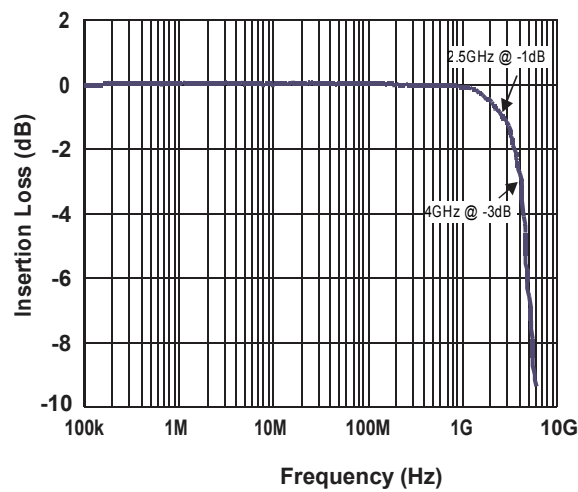
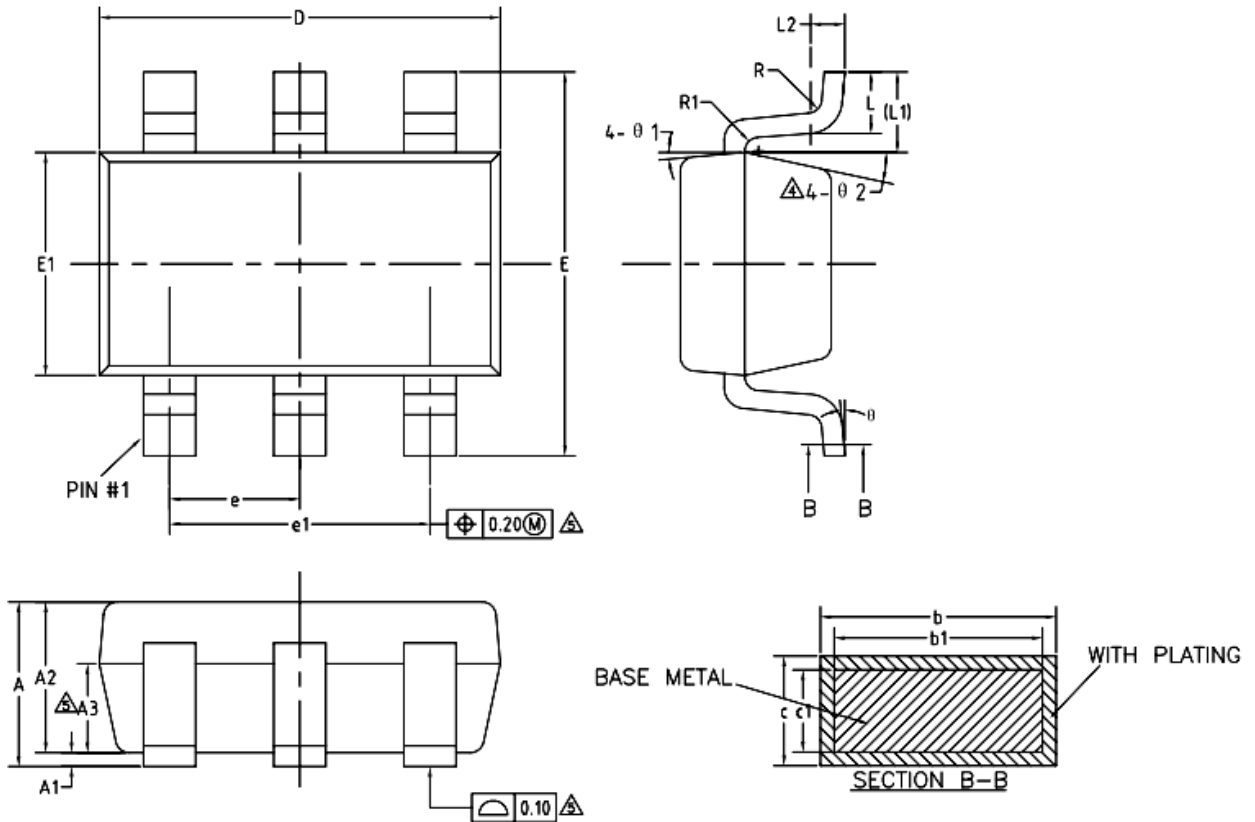


Fig.5 Insertion Loss S21 - I/O to GND



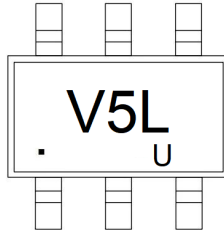
SOT23-6



COMMON DIMENSIONS  
(UNITS OF MEASURE=MILLIMETER)

SYMBOL	MIN	NOM	MAX
A	—	—	1.25
A1	0	—	0.15
A2	1.00	1.10	1.20
A3	0.60	0.65	0.70
b	0.36	—	0.50
b1	0.36	0.38	0.45
c	0.14	—	0.20
c1	0.14	0.15	0.16
D	2.826	2.926	3.026
E	2.60	2.80	3.00
E1	1.526	1.626	1.726
e	0.90	0.95	1.00
e1	1.80	1.90	2.00
L	0.35	0.45	0.60
L1	0.59REF		
L2	0.25BSC		
R	0.10	—	—
R1	0.10	—	0.20
θ	0°	—	8°
θ 1	3°	5°	7°
θ 2	6°	—	14°

**Marking**



**Ordering information**

Order code	Package	Base qty	Delivery mode
UMW NUP4201MR6T1G	SOT23-6	3000	Tape and reel