

1. Features

- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 30\text{kV}$
 - Contact discharge: $\pm 30\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 6A (8/20 μs)
- Ultra low leakage: nA level
- Operating voltage: 5V
- Low clamping voltage
- RoHS Compliant

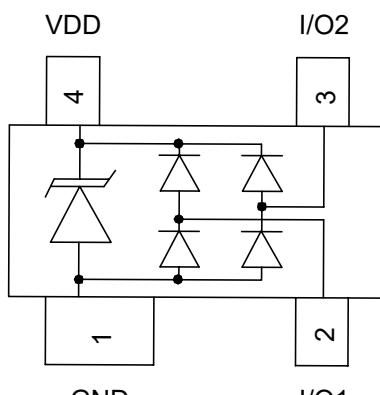
2. Applications

- USB 2.0 power and data line
- Set-top box and digital TV
- Digital video interface (DVI)
- Notebook Computers
- SIM Ports
- 10/100 Ethernet

3. Mechanical Data

- Package: SOT-143
- Lead Finish: Matte Tin
- UL Flammability Classification Rating 94V-0

4. Pinning Information



SOT-143



5. Absolute Maximum Ratings

Parameter	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu s$)	P_{PK}	500	W
Peak Pulse Current ($t_p=8/20\mu s$)	I_{PP}	25	A
Peak Forward Voltage ($I_F=1A$, $t_p=8/20\mu s$)	V_{FP}	1.5	V
Lead Soldering Temperature	T_L	260/10s	°C
Operating Temperature	T_J	-55 to 125	°C
Storage Temperature	T_{STG}	-55 to 150	°C

6. Electrical Characteristics ($T_A=25^\circ C$ unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	6			V
Reverse Leakage Current	I_R	$V_{RWM}=5V$, $T=25^\circ C$			5	µA
Clamping Voltage	V_C	$I_{PP}=1A$, $t_p=8/20\mu s$			9.8	V
		$I_{PP}=10A$, $t_p=8/20\mu s$			12	V
		$I_{PP}=25A$, $t_p=8/20\mu s$			20	V
Junction Capacitance	C_J	Between I/O pins and Ground $V_R=0V$, $f=1MHz$		6	10	pF
		Between I/O pins $V_R=0V$, $f=1MHz$		3		pF

7. Typical Characteristic

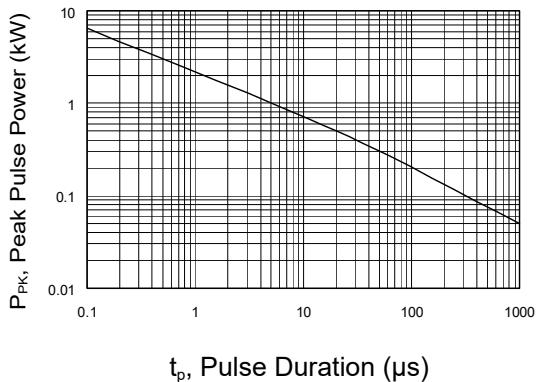


Figure 1: Non-Repetitive Peak Pulse Power vs. Pulse Time

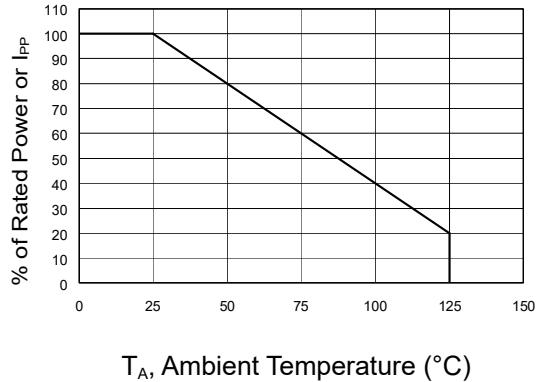


Figure 2: Power Derating Curve

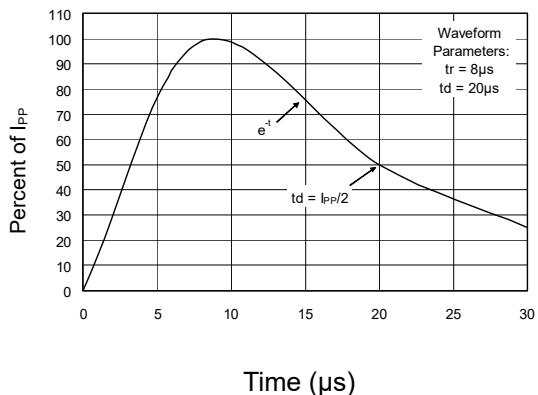


Figure 3: Pulse Waveform

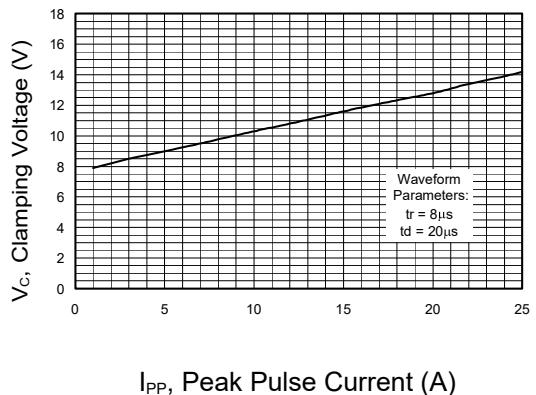


Figure 4: Clamping Voltage vs. Peak Pulse Current

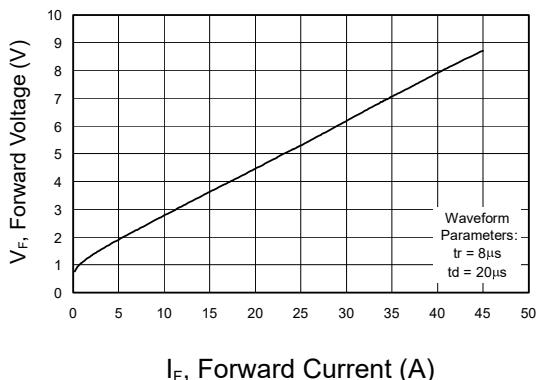


Figure 5: Forward Voltage vs. Forward Current

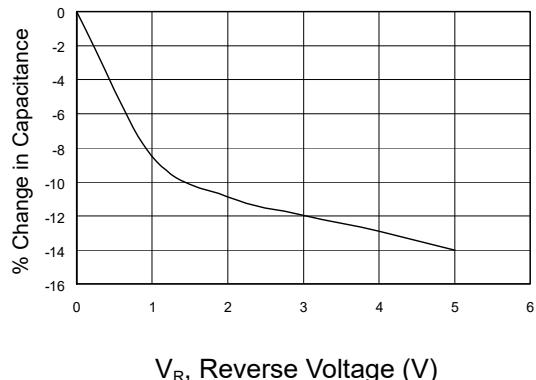
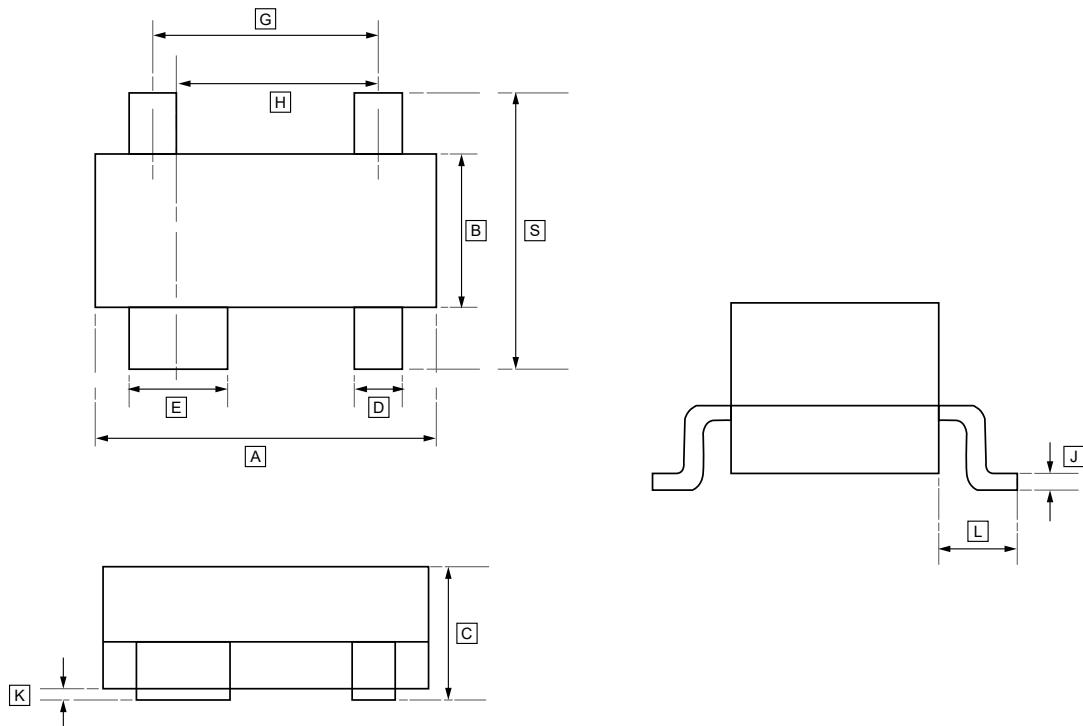


Figure 6: Capacitance vs. Reverse Voltage

8.SOT-143 Package Outline Dimensions

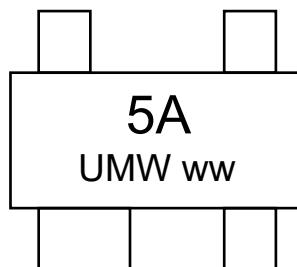


DIMENSIONS (mm are the original dimensions)

Symbol	A	B	C	D	E	G	H	J	K	L	S
Min	2.80	1.20	0.80	0.37	0.76	1.92	1.72	0.085	0.013	0.254	2.10
Max	3.04	1.40	1.20	0.510	0.940	BSC	BSC	0.180	0.10	0.55	2.64



9.Ordering Information



ww: Batch Code

Order Code	Package	Base QTY	Delivery Mode
UMW PSR05-LF-T7	SOT-143	3000	Tape and reel



10.Disclaimer

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