UMW PESD5V0L4UG

1.Features

- Complies with following standards:
  – IEC 61000-4-2 (ESD) immunity test
  Air discharge: ±30kV
  Contact discharge: ±25kV
  – IEC61000-4-5 (Lightning) 6A (8/20μs)
- Ultra low leakage: nA level
- Operating voltage: 5V
- Low clamping voltage
- RoHS Compliant
- Protecting 4 unidirectional line

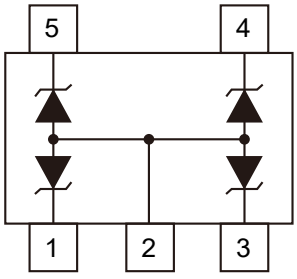
2.Applications

- Computers
- Printers
- Communication systems
- Cellular phones handsets and accessories
- Wireline and wireless telephone sets
- Set top boxes

3.Mechanical Characteristics

- Package: SOT-353
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0

4.Pinning information



SOT-353

5.Absolute Maximum Ratings(T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Value	Units
Peak Pulse Power (8/20μs)	P_{PP}	150	W
ESD per IEC 61000−4−2 (Air)	V_{ESD}	±30	kV
ESD per IEC 61000−4−2 (Contact)		±25	kV
Junction Temperature Range	T_J	-40 to 125	°C
Storage Temperature Range	T_{STG}	-40 to 150	°C

6.Electrical Characteristics(T_A=25°C unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse Working Voltage	V_{RWM}				5	V
Breakdown Voltage	V_{BR}	I_T=1mA	6.1	6.7	7.2	V
Reverse Leakage Current	I_R	V_{RWM}=5V			1	μA
Clamping Voltage	V_C	I_{PP}=1A (8 x 20μs pulse)		10	15	V
		I_{PP}=6A (8 x 20μs pulse)		13.5	20	V
Junction Capacitance	C_J	V_R=0V, f=1MHz		90		pF

7.Typical characteristic

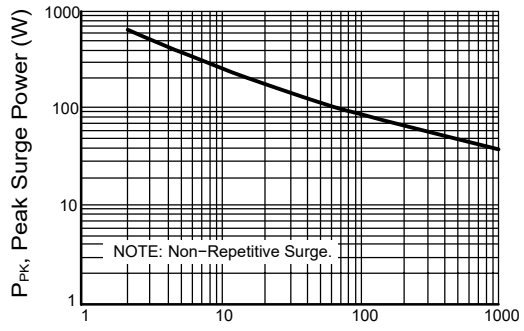


Figure 1: Pulse Width

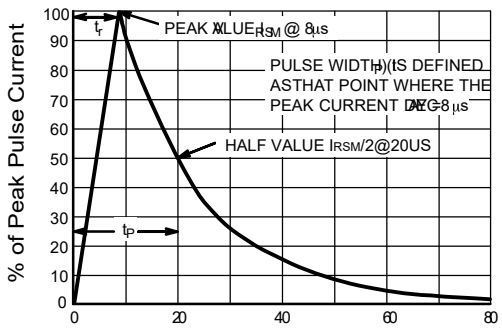


Figure 2: 8 x 20 μs Pulse Waveform

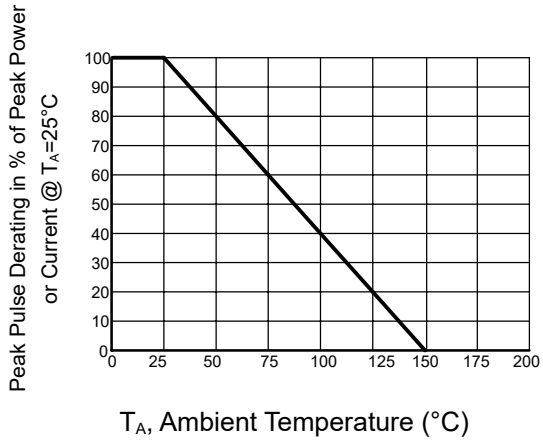


Figure 3: Pulse Derating Curve

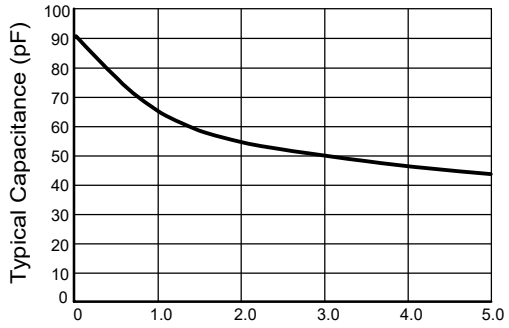


Figure 4: . Capacitance

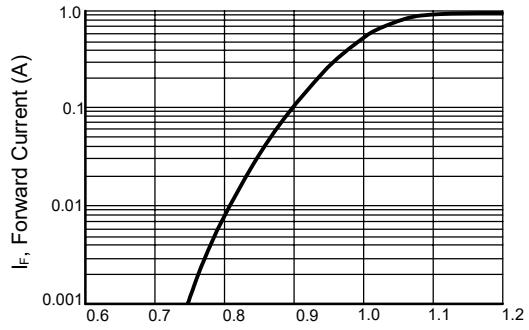
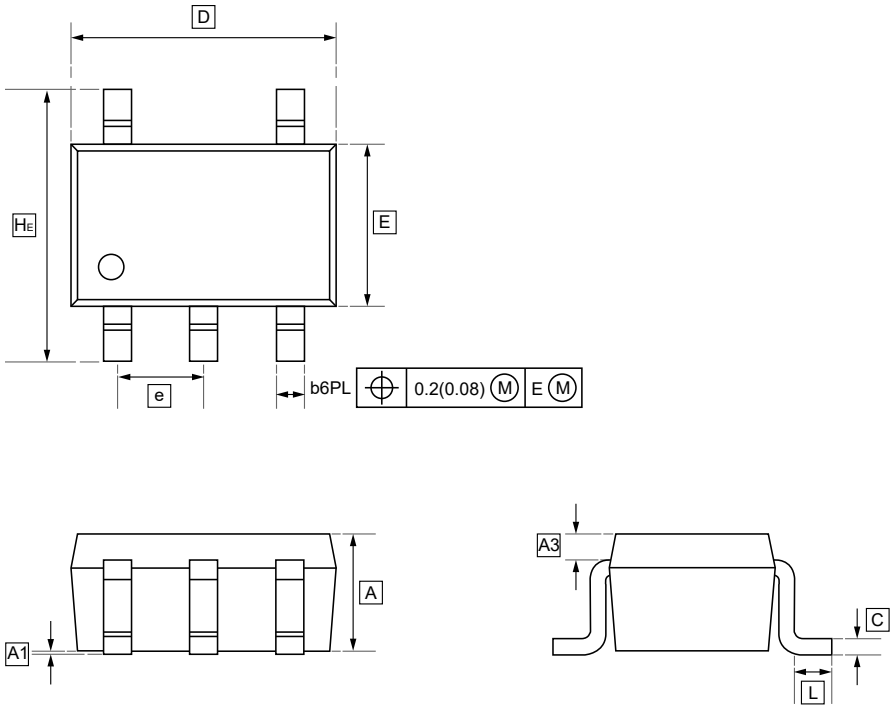


Figure 5: Forward Voltage



Figure 6: Clamping Voltage versus Peak Pulse Current (Reverse Direction)

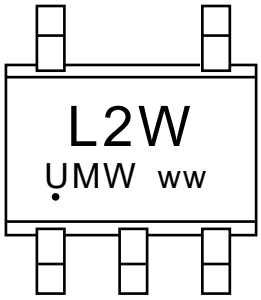
8.SOT-353 Package Outline Dimensions



DIMENSIONS (mm are the original dimensions)

Symbol	A	A1	A3	b	C	D	E	e	L	H_E
Min	0.80	0.00	0.2	0.10	0.10	1.80	1.15	0.65	0.10	2.00
Max	1.10	0.10	REF	0.30	0.25	2.20	1.35	BSC	0.30	2.20

9.Ordering information



ww: Batch Code

Order Code	Package	Base QTY	Delivery Mode
UMW PESD5V0L4UG	SOT-353	3000	Tape and reel

10.Disclaimer

UMW reserves the right to make changes to all products, specifications. Customers should obtain the latest version of product documentation and verify the completeness and currency of the information before placing an order.

When applying our products, please do not exceed the maximum rated values, as this may affect the reliability of the entire system. Under certain conditions, any semiconductor product may experience faults or failures. Buyers are responsible for adhering to safety standards and implementing safety measures during system design, prototyping, and manufacturing when using our products to prevent potential failure risks that could lead to personal injury or property damage.

Unless explicitly stated in writing, UMW products are not intended for use in medical, life-saving, or life-sustaining applications, nor for any other applications where product failure could result in personal injury or death. If customers use or sell the product for such applications without explicit authorization, they assume all associated risks.

When reselling, applying, or exporting, please comply with export control laws and regulations of China, the United States, the United Kingdom, the European Union, and other relevant countries, regions, and international organizations.

This document and any actions by UMW do not grant any intellectual property rights, whether express or implied, by estoppel or otherwise. The product names and marks mentioned herein may be trademarks of their respective owners.