UMW SS52A THRU SS520A

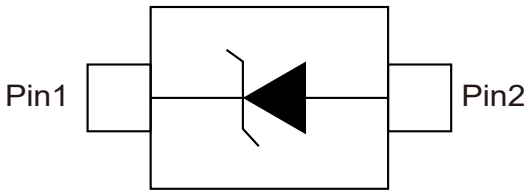
1.Features

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency
- inverters, free wheeling, and polarity protection applications

2.Mechanical Data

- Case: SMA
- Approx. Weight: 60mg / 0.0021oz
- Terminals: Solderable per MIL-STD-750 Method 2026

3.Pinning information



SMA

4.Maximum Ratings And Electrical Characteristics

Parameter		Symbols	SS 52A	SS 54A	SS 56A	SS 58A	SS 510A	SS 512A	SS 515A	SS 520A	Units
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	20	40	60	80	100	120	150	200	V
Maximum RMS Voltage		V_{RMS}	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage		V_{DC}	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current		$I_{F(AV)}$	5								A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)		I_{FSM}	125								A
Max Instantaneous Forward Voltage at 5 A		V_F	0.55		0.70		0.85				V
Maximum DC Reverse Current	T_A=25°C	I_R	1.0								mA
at Rated DC Blocking Voltage	T_A=100°C		50								mA
Typical Junction Capacitance (Note1)		C_J	200								pF
Typical Thermal Resistance (Note 2)		$R_{\theta JA}$	60								°C/W
Junction Temperature Range		T_J	-55 to 150								°C
Storage Temperature Range		T_{STG}	-55 to 150								°C

Absolute Maximum Ratings and Electrical characteristics Ratings at ambient temperature unless otherwise specified.Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Notes:

1. Measured at 1 MHz and applied reverse voltage of 4 V D.C
2. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

5.Typical characteristic

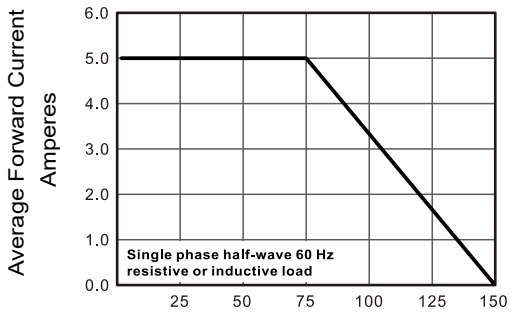


Figure 1: Forward Current Derating Curve

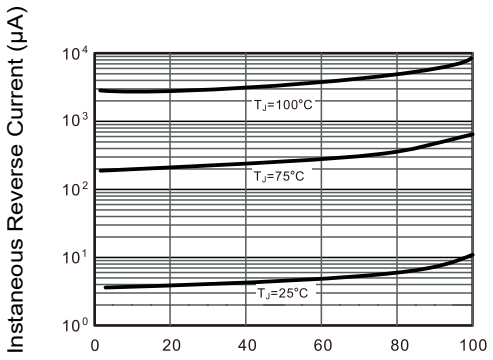


Figure 2: Typical Reverse Characteristics

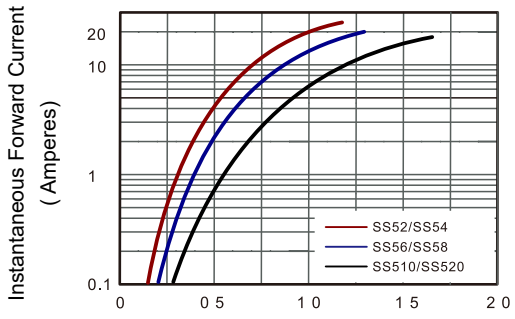


Figure 3: Typical Forward Characteristic

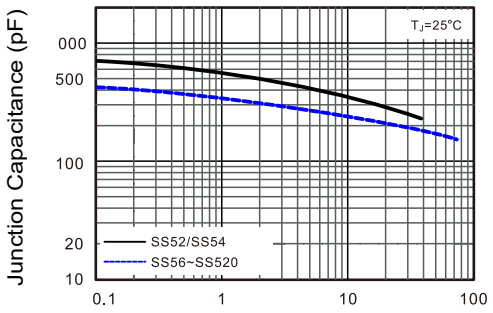


Figure 4: Typical Junction Capacitance

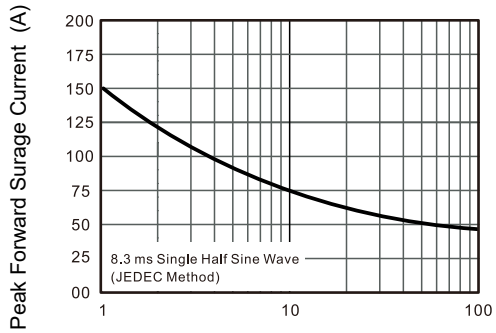


Figure 5: Maximum Non-Repetitive Peak Forward Surage Current

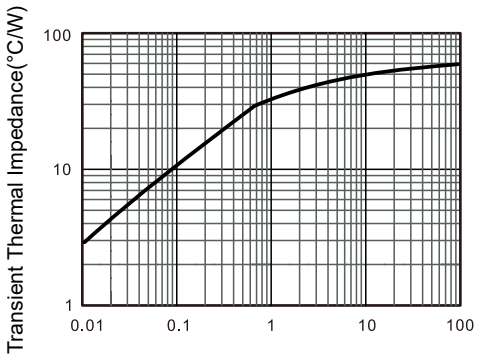
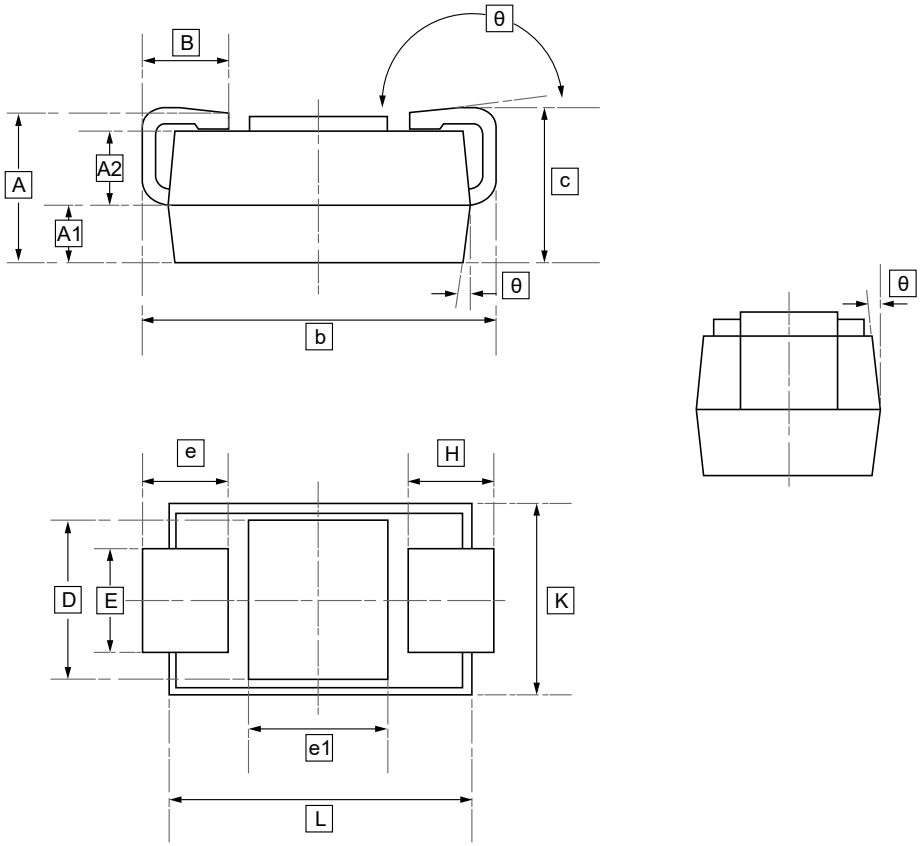


Figure 6: Typical Transient Thermal Impedance

6.SMA Package Outline Dimensions



DIMENSIONS (mm are the original dimensions)

Symbol	A	A1	A2	B	b	c	D	E	e1	L	K	θ
Min	1.95	0.70	0.90	0.78	4.93	1.95	2.0	1.25	1.90	4.20	2.35	0°
Max	2.29	0.90	1.10	1.52	5.28	2.25	2.25	1.65	2.10	4.40	2.79	5°

7 .Ordering information



Order Code	Marking	Package	Base QTY	Delivery Mode
UMW SS52A	SS52	SMA	2000	Tape and reel
UMW SS54A	SS54	SMA	2000	Tape and reel
UMW SS56A	SS56	SMA	2000	Tape and reel
UMW SS58A	SS58	SMA	2000	Tape and reel
UMW SS510A	SS510	SMA	2000	Tape and reel
UMW SS512A	SS512	SMA	2000	Tape and reel
UMW SS515A	SS515	SMA	2000	Tape and reel
UMW SS520A	SS520	SMA	2000	Tape and reel

8.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.