

# Common Anode Silicon Dual Switching Diode

**LM1MA141WA**  
**LM1MA142WA**

This Common Anode Silicon Epitaxial Planar Dual Diode is designed for use in ultra high speed switching applications. This device is housed in the SUV-HGH package which is designed for low power surface mount applications.

- Fast  $t_{rr}$ , < 10 ns
- Low  $C_D$ , < 15 pF
- We declare that the material of product compliance with RoHS requirements.
- Moisture Sensitivity Level 1

### DEVICE MARKING AND ORDERING INFORMATION

Device	Package	Shipping
LM1MA141WA	SOT-323	3000/Tape&Reel
LM1MA142WA	SOT-323	3000/Tape&Reel

#### Pb-Free package is available

RoHS product for packing code suffix "G"

Halogen free product for packing code suffix "H"

### DEVICE MARKING

LM1MA141WA = MN	LM1MA142WA =MO
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### MAXIMUM RATINGS (T<sub>A</sub> = 25°C)

Rating	Symbol	Value	Unit
Reverse Voltage	LM1MA141WA LM1MA142WA	V <sub>R</sub> 80	V <sub>dc</sub>
Peak Reverse Voltage	LM1MA141WA LM1MA142WA	V <sub>RM</sub> 80	V <sub>dc</sub>
Forward Current	Single Dual	I <sub>F</sub> 100 150	mAdc
Peak Forward Current	Single Dual	I <sub>FM</sub> 225 340	mAdc
Peak Forward Surge Current	Single Dual	I <sub>FSM</sub> <sup>(1)</sup> 500 750	mAdc

### THERMAL CHARACTERISTICS

Rating	Symbol	Max	Unit
Power Dissipation	P <sub>D</sub>	150	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 ~ +150	°C

### ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C)

Characteristic	Symbol	Condition	Min	Max	Unit
Reverse Voltage Leakage Current	LM1MA141WA LM1MA142WA	I <sub>R</sub> V <sub>R</sub> = 35 V V <sub>R</sub> = 75 V	—	0.1 0.1	μAdc
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 100 mA	—	1.2	Vdc
Reverse Breakdown Voltage	LM1MA141WA LM1MA142WA	V <sub>R</sub> I <sub>R</sub> = 100 μA	40 80	—	Vdc
Diode Capacitance	C <sub>D</sub>	V <sub>R</sub> =0, f=1.0 MHz	—	15	pF
Reverse Recovery	Time	t <sub>rr</sub> <sup>(2)</sup> I <sub>F</sub> =10mA, V <sub>R</sub> =6.0V R <sub>L</sub> =100Ω, I <sub>rr</sub> =0.1 I <sub>R</sub>	—	10	ns

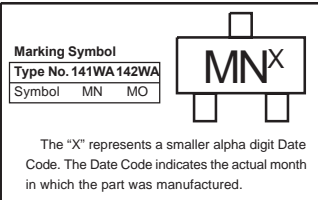
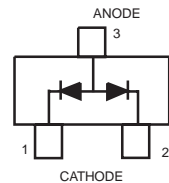
1. t = 1 SEC

2. t<sub>rr</sub> Test Circuit

**SOT-323 PACKAGE**  
**COMMON ANODE**  
**DUAL SWITCHING DIODE**  
**40/80 V-100 mA**  
**SURFACE MOUNT**



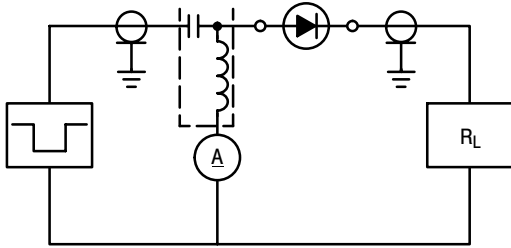
SOT-323 /SC - 70



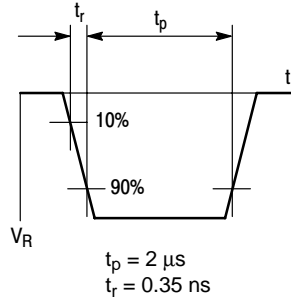
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### RECOVERY TIME EQUIVALENT TEST CIRCUIT



### INPUT PULSE



### OUTPUT PULSE

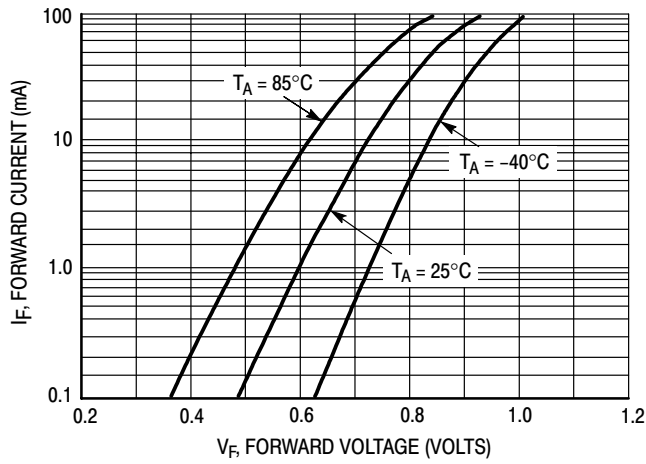
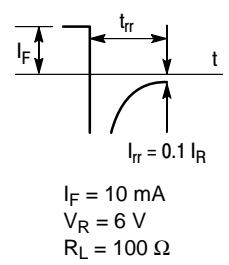


Figure 1. Forward Voltage

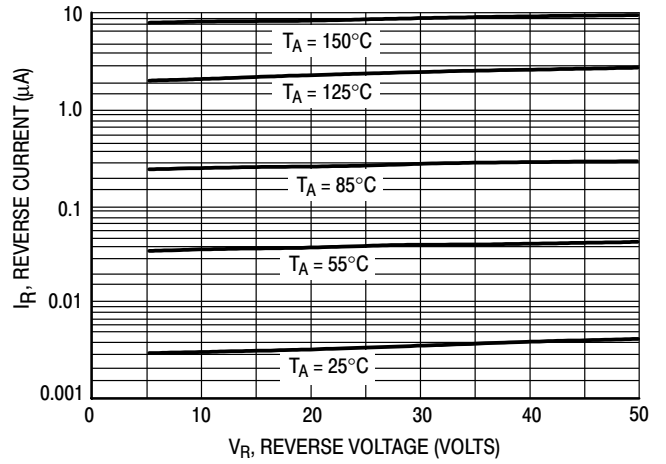


Figure 2. Reverse Current

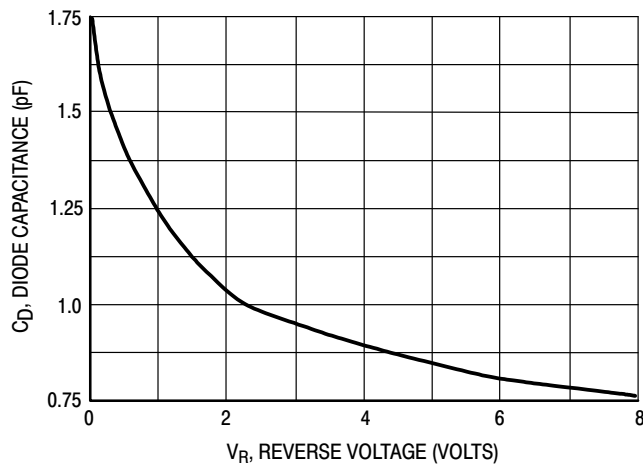
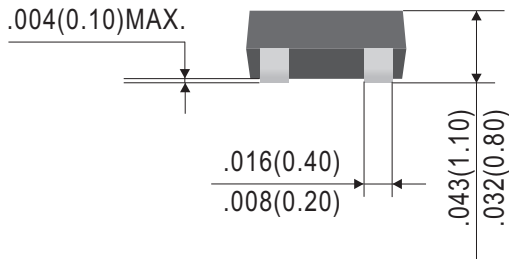
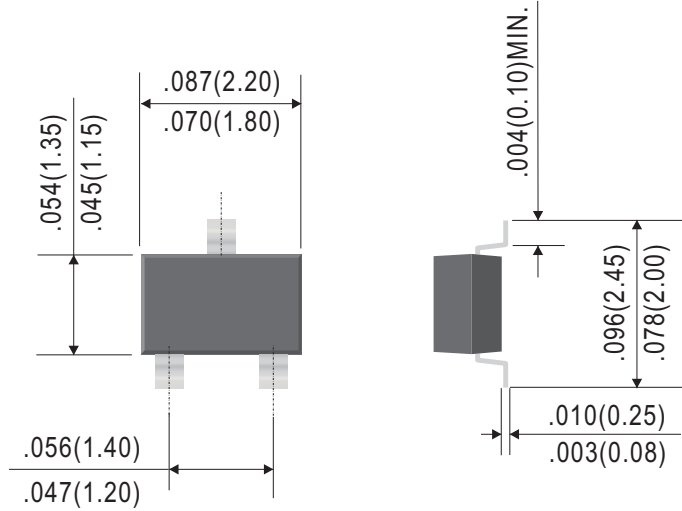


Figure 3. Diode Capacitance

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**SOT-323**



Dimensions in inches and (millimeters)

