

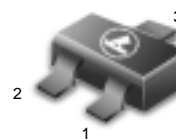
# Common Anode Silicon Dual Switching diodes

These Common Anode Silicon Epitaxial Planar Dual Diodes are designed for use in ultra high speed switching applications. These devices are housed in the SC-59 package which is designed for low power surface mount applications.

- Fast  $t_{rr}$ , < 10 ns
- Low  $C_D$ , < 15 pF
- Available in 8 mm Tape and Reel
- Pb-Free Package is available

**LM1MA151WAT1**  
**LM1MA152WAT1**

**SC-59 PACKAGE**  
**COMMON ANODE**  
**DUAL SWITCHING DIODES**  
**40/80 V-100mA**  
**SURFACE MOUNT**



**CASE 318D-03, STYLE5**  
**SC-59**

## ORDERING INFORMATION

Device*	Package	Shipping
LM1MA151WAT1	SC-59	3000/Tape&Reel
LM1MA151WAT1G (Pb-Free)	SC-59	3000/Tape&Reel
LM1MA152WAT1	SC-59	3000/Tape&Reel
LM1MA152WAT1G (Pb-Free)	SC-59	3000/Tape&Reel

\*Replace "T1" with "T3" in the Device Number to Order the 13inch/10,000 unit Reel.

## MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ )

Rating	Symbol	Value	Unit	
Reverse Voltage	LM1MA151WAT1	$V_R$	40	Vdc
	LM1MA152WAT1		80	
Peak Reverse Voltage	LM1MA151WAT1	$V_{RM}$	40	Vdc
	LM1MA152WAT1		80	
Forward Current	Single	$I_F$	100	mAdc
	Dual		150	
Peak Forward Current	Single	$I_{FM}$	225	mAdc
	Dual		340	
Peak Forward Surge Current	Single	$I_{FSM}^{(1)}$	500	mAdc
	Dual		750	

## THERMAL CHARACTERISTICS

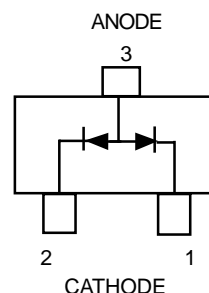
Rating	Symbo	IMax	Unit
Power Dissipation	$P_D$	200	mW
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

## ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ )

Characteristic	Symbol	Condition	Min	Max	Unit	
Reverse Voltage Leakage Current	LM1MA151WAT1	$I_R$	$V_R = 35\text{ V}$	—	0.1	$\mu\text{Adc}$
	LM1MA152WAT1		$V_R = 75\text{ V}$	—	0.1	
Forward Voltage	$V_F$	$I_F = 100\text{ mA}$	—	1.2	Vdc	
Reverse Breakdown Voltage	LM1MA151WAT1	$V_R$	$I_R = 100\ \mu\text{A}$	40	—	Vdc
	LM1MA152WAT1			80	—	
Diode Capacitance	$C_D$	$V_R = 0, f = 1.0\text{ MHz}$	—	15	pF	
Reverse Recovery Time	$t_{rr}^{(2)}$	$I_F = 10\text{ mA}, V_R = 6.0\text{ V}, R_L = 100\ \Omega, I_{rr} = 0.1 I_R$	—	10	ns	

1.  $t = 1\text{ SEC}$

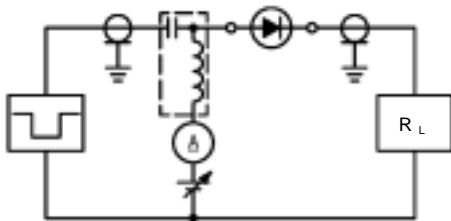
2.  $t_{rr}$  Test Circuit



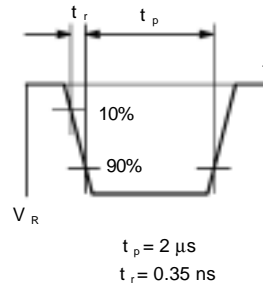
CATHODE

**LM1MA151WAT1 LM1MA152WAT1**

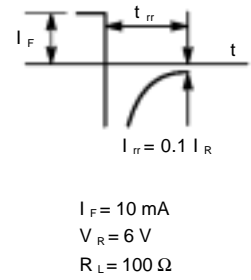
**RECOVERY TIME EQUIVALENT TEST CIRCUIT**



**INPUT PULSE**

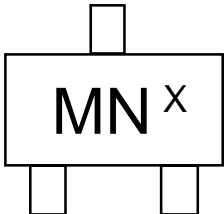


**OUTPUT PULSE**

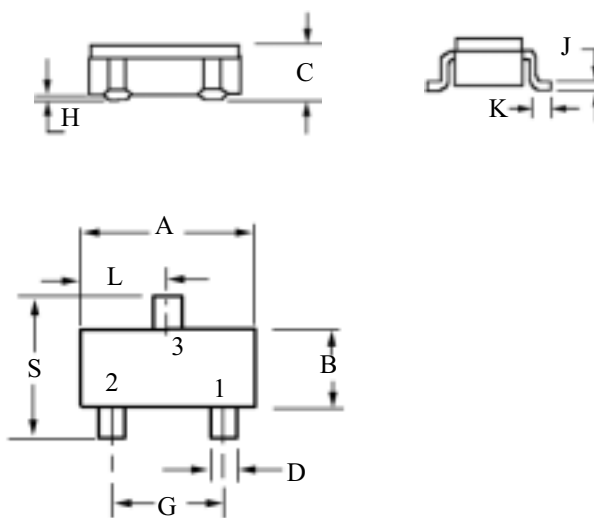


**DEVICE MARKING—EXAMPLE**

Marking Symbol		
Type No.	151WA	152WA
Symbol	MN	MO



The "X" represents a smaller alpha digit Date Code. The Date Code indicates the actual month in which the part was manufactured.

**LM1MA151WAT1 LM1MA152WAT1**
**SC-59**


DIN	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.70	3.10	0.1063	0.1220
B	1.3	1.70	0.0512	0.0669
C	1.00	1.30	0.0394	0.0511
D	0.35	0.50	0.0138	0.0196
G	1.70	2.10	0.0670	0.0826
H	0.0130	0.100	0.0005	0.00040
J	0.1	0.26	0.0040	0.0102
K	0.20	0.60	0.0079	0.0236
L	1.25	1.65	0.0493	0.0649
S	2.50	3.00	0.0985	0.1181