

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

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	$V_R = 35\text{ V}$	—	0.1	μAdc
	LM1MA152WAT1	$V_R = 75\text{ V}$	—	0.1	
Forward Voltage	V_F	$I_F = 100\text{ mA}$	—	1.2	Vdc
Reverse Breakdown Voltage	LM1MA151WAT1	$I_R = 100\ \mu\text{A}$	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. $t = 1\text{ SEC}$

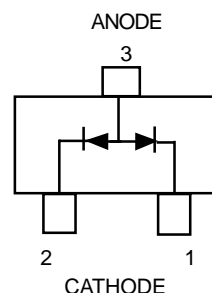
2. t_{rr} Test Circuit

LM1MA151WAT1
LM1MA152WAT1

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

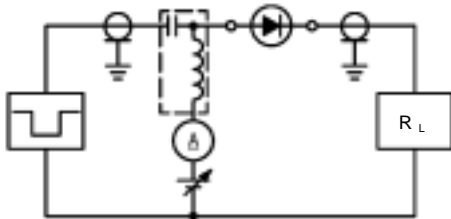


CASE 318D-03, STYLE5
SC-59

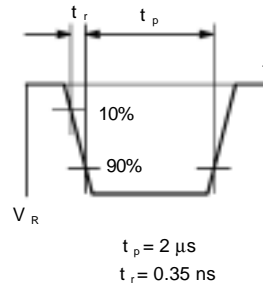


LM1MA151WAT1 LM1MA152WAT1

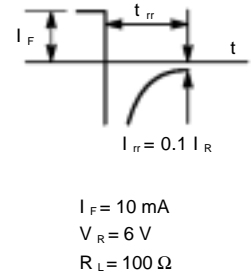
RECOVERY TIME EQUIVALENT TEST CIRCUIT



INPUT PULSE

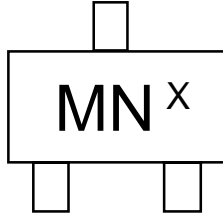


OUTPUT PULSE



DEVICE MARKING—EXAMPLE

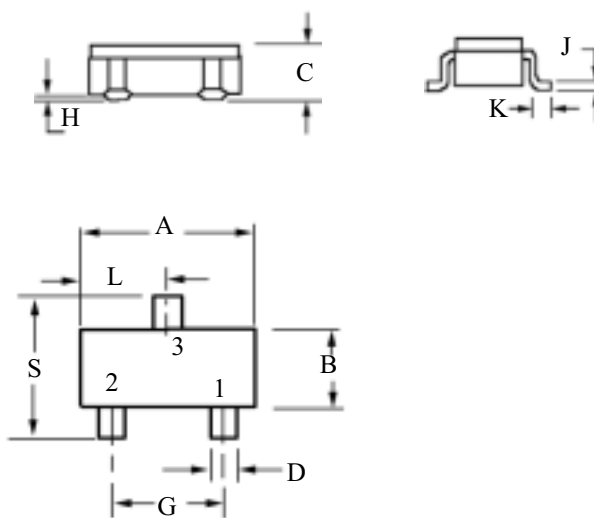
Marking Symbol		
Type No.	151WA	152WA
Symbol	MN	MO



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