

# 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 SOT-23 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

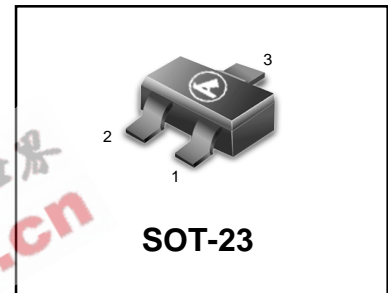
Use M1MA151/2WALT1 to order the 7 inch/3000 unit reel.

Use M1MA151/2WALT3 to order the 13 inch/10,000 unit reel.

- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish

**M1MA151WALT1**  
**M1MA152WALT1**

**SOT-23 PACKAGE**  
**COMMON ANODE**  
**DUAL SWITCHING DIODES**  
**40/80 V-100mA**  
**SURFACE MOUNT**

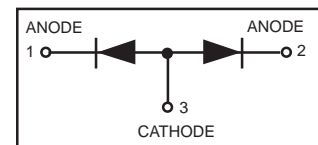


## ORDERING INFORMATION

Device	Package	Shipping
M1MA151WALT1G	SOT-23	3000/Tape & Reel
M1MA152WALT1G	SOT-23	3000/Tape & Reel
M1MA151WALT1	SOT-23	3000/Tape & Reel
M1MA151WALT1	SOT-23	3000/Tape & Reel

## MAXIMUM RATINGS (T<sub>A</sub> = 25°C)

Rating	Symbol	Value	Unit	
Reverse Voltage	M1MA151WALT1	V <sub>R</sub>	40	Vdc
	M1MA152WALT1		80	
Peak Reverse Voltage	M1MA151WALT1	V <sub>RM</sub>	40	Vdc
	M1MA152WALT1		80	
Forward Current	Single	I <sub>F</sub>	100	mAdc
	Dual		150	
Peak Forward Current	Single	I <sub>FM</sub>	225	mAdc
	Dual		340	
Peak Forward Surge Current	Single	I <sub>FSM</sub> <sup>(1)</sup>	500	mAdc
	Dual		750	



## THERMAL CHARACTERISTICS

Rating	Symbo	IMax	Unit
Power Dissipation	P <sub>D</sub>	200	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 to +150	°C

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

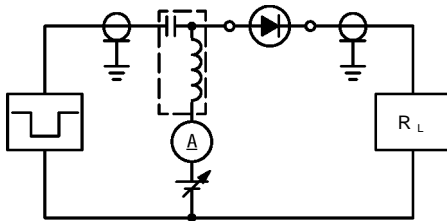
Characteristic	Symbol	Condition	Min	Max	Unit
Reverse Voltage Leakage Current	M1MA151WALT1	V <sub>R</sub> = 35 V	—	0.1	μAdc
	M1MA152WALT1	V <sub>R</sub> = 75 V	—	0.1	
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 100 mA	—	1.2	Vdc
Reverse Breakdown Voltage	M1MA151WALT1	I <sub>R</sub> = 100 μA	40	—	Vdc
	M1MA152WALT1		80	—	
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> = 10 mA, V <sub>R</sub> = 6.0 V, R <sub>L</sub> = 100Ω, I <sub>rr</sub> = 0.1 I <sub>R</sub>	—	10	ns

1. t = 1 SEC

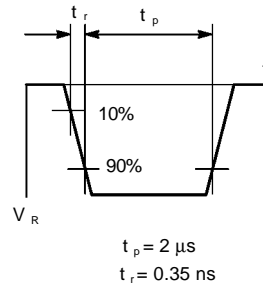
2. t<sub>rr</sub> Test Circuit

**M1MA151WALT1 M1MA152WALT1**

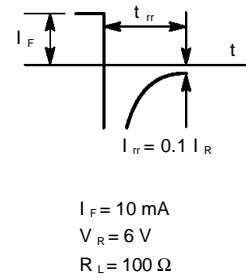
**RECOVERY TIME EQUIVALENT TEST CIRCUIT**



**INPUT PULSE**

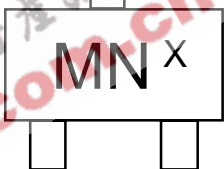


**OUTPUT PULSE**



**DEVICE MARKING—EXAMPLE**

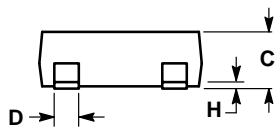
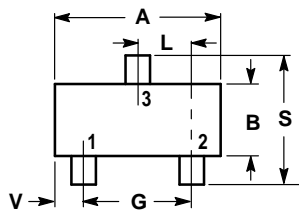
Marking Symbol		
Type No.	151WA	152WA
Symbol	MN	MO



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

M1MA151WALT1 M1MA152WALT1

SOT-23



NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.1102	0.1197	2.80	3.04
B	0.0472	0.0551	1.20	1.40
C	0.0350	0.0440	0.89	1.11
D	0.0150	0.0200	0.37	0.50
G	0.0701	0.0807	1.78	2.04
H	0.0005	0.0040	0.013	0.100
J	0.0034	0.0070	0.085	0.177
K	0.0140	0.0285	0.35	0.69
L	0.0350	0.0401	0.89	1.02
S	0.0830	0.1039	2.10	2.64
V	0.0177	0.0236	0.45	0.60

- PIN 1. BASE  
 2. EMITTER  
 3. COLLECTOR

