

Single Silicon Switching Diodes

These Silicon Epitaxial Planar 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.

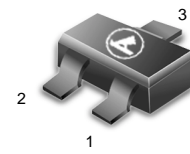
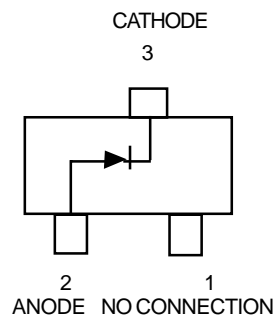
- Fast t_{rr} , < 3.0 ns
- Low C_D , < 2.0 pF
- Available in 8 mm Tape and Reel

Use M1MA151/2KT1 to order the 7 inch/3000 unit reel.

Use M1MA151/2KT3 to order the 13 inch/10,000 unit reel.

M1MA151KT1
M1MA152KT1

SC-59 PACKAGE
SINGLE SILICON
SWITCHING DIODES
40/80 V-100mA
SURFACE MOUNT



CASE 318D-03, STYLE2
SC-59

MAXIMUM RATINGS (T_A = 25°C)

Rating	Symbol	Value	Unit	
Reverse Voltage	M1MA151KT1 M1MA152KT1	V _R	40 80	Vdc
Peak Reverse Voltage	M1MA151KT1 M1MA152KT1	V _{RM}	40 80	Vdc
Forward Current		I _F	100	mAdc
Peak Forward Current		I _{FM}	225	mAdc
Peak Forward Surge Current		I _{FSM} ⁽¹⁾	500	mAdc

THERMAL CHARACTERISTICS

Rating	Symbo	IMax	Unit
Power Dissipation	P _D	200	mW
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C)

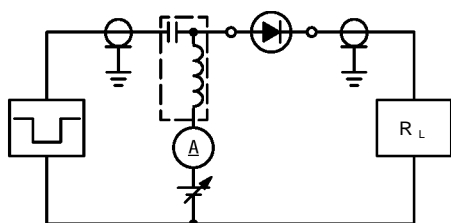
Characteristic	Symbol	Condition	Min	Max	Unit
Reverse Voltage Leakage Current	M1MA151KT1 M1MA152KT1	I _R	V _R = 35 V V _R = 75 V	— 0.1	μAdc
Forward Voltage	V _F	I _F = 100 mA	—	1.2	Vdc
Reverse Breakdown Voltage	M1MA151KT1 M1MA152KT1	V _R	I _R = 100 μA	40 80	Vdc
Diode Capacitance	C _D	V _R = 0, f = 1.0 MHz	—	2.0	pF
Reverse Recovery Time	t _{rr} ⁽²⁾	I _F = 10 mA, V _R = 6.0 V, R _L = 100Ω, I _{rr} = 0.1 I _R	—	3.0	ns

1. t = 1 SEC

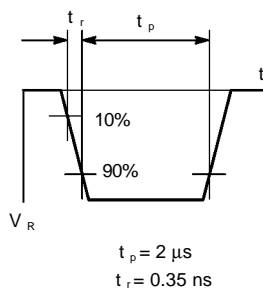
2. t_{rr} Test Circuit

M1MA151KT1 M1MA152KT1

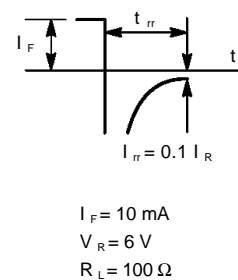
RECOVERY TIME EQUIVALENT TEST CIRCUIT



INPUT PULSE

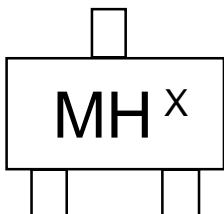


OUTPUT PULSE



DEVICE MARKING—EXAMPLE

Type No.	151K	152K
Symbol	MH	MI



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