

# MA4ZD14

## Silicon epitaxial planar type

For high speed switching

### ■ Features

- Two isolated elements are contained in one package, allowing high-density mounting
- Low forward voltage:  $V_F < 0.40$  V

### ■ Package

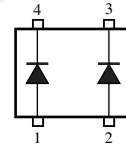
- Code  
SMini4-F1
- Pin Name  
1: Anode 1                      3: Cathode 2  
2: Anode 2                      4: Cathode 1

### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Reverse voltage	$V_R$	20	V
Repetitive peak reverse-voltage	$V_{RRM}$	20	V
Forward current	Single	$I_F$	100
	Double *1		75
Peak forward current	Single	$I_{FM}$	300
	Double *1		225
Non-repetitive peak forward surge current *2	Single	$I_{FSM}$	1
	Double *1		0.75
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$

### ■ Marking Symbol: M5D

### ■ Internal Connection



Note) \*1: Value of each diode in double diodes used.

\*2: The peak-to-peak value in one cycle of 50 Hz sine wave (non-repetitive)

### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

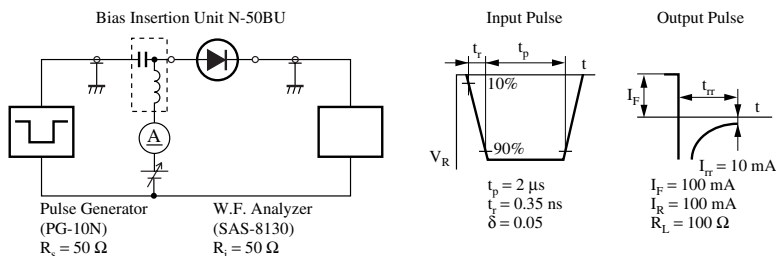
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current	$I_R$	$V_R = 10$ V			20	$\mu\text{A}$
Forward voltage	$V_{F1}$	$I_F = 5$ mA			0.27	V
	$V_{F2}$	$I_F = 100$ mA			0.40	
Terminal capacitance	$C_t$	$V_R = 0$ V, $f = 1$ MHz		25		pF
Reverse recovery time *	$t_{rr}$	$I_F = I_R = 100$ mA $I_{rr} = 10$ mA, $R_L = 100$ $\Omega$		3		ns

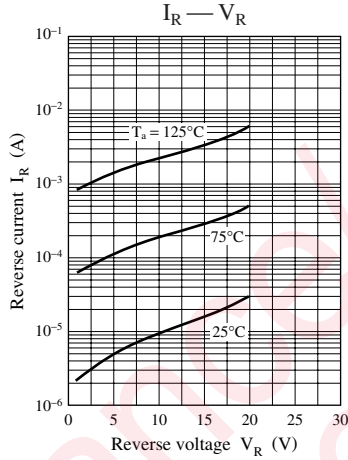
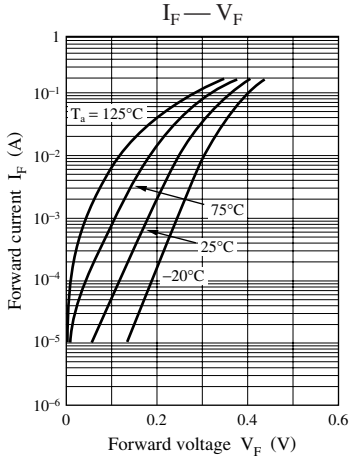
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

2. This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.

3. Absolute frequency of input and output is 250 MHz.

4.\*:  $t_{rr}$  measurement circuit





Maintenance/Discontinued

Maintenance/Discontinued includes following four Product lifecycle stage.  
 planned maintenance type  
 maintenance type  
 planned discontinued type  
 discontinued type  
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and household appliances).

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biles, traffic control equipment, combustion equipment, life support  
reliability are required, or if the failure or malfunction of the prod-

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take into the consideration of incidence of break down and failure  
n the systems such as redundant design, arresting the spread of fire  
al injury, fire, social damages, for example, by using the products.

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mounting or at customer's process. When using products for which  
shelf life and the elapsed time since first opening the packages.

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