

# MA4Z159 (MA4S159)

## Silicon epitaxial planar type

For switching circuits

### ■ Features

- Two isolated elements contained in one package, allowing high-density mounting
- Flat lead type, resulting in improved mounting efficiency and solderability with the high-speed mounting machine
- Short reverse recovery time  $t_{rr}$
- Small terminal capacitance  $C_t$

### ■ Package

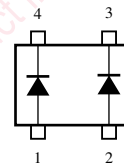
- Code  
SMini4-F1
- Pin Name  
1: Anode 1                      3: Cathode 2  
2: Anode 2                      4: Cathode 1

### ■ Marking Symbol: M1B

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

Parameter	Symbol	Rating	Unit
Reverse voltage	$V_R$	80	V
Maximum peak reverse voltage	$V_{RM}$	80	V
Forward current	Single	100	mA
	Double	75	
Peak forward current	Single	225	mA
	Double	170	
Non-repetitive peak forward surge current*	Single	500	mA
	Double	375	
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

### ■ Internal Connection



Note) \*:  $t = 1 \text{ s}$

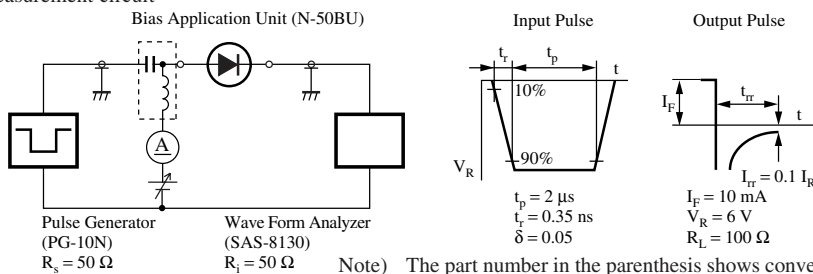
### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

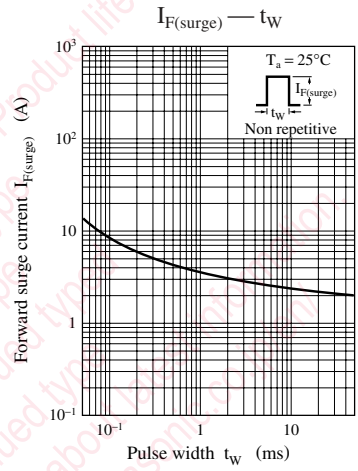
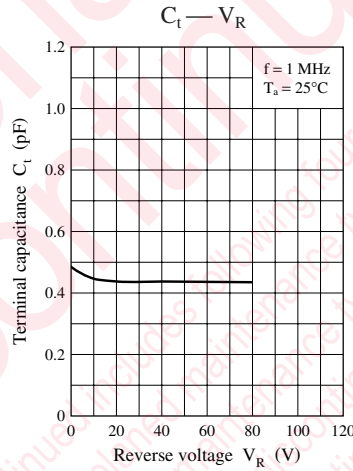
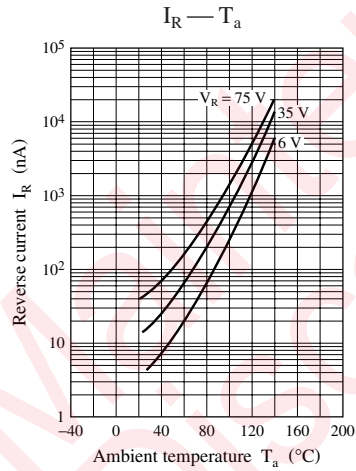
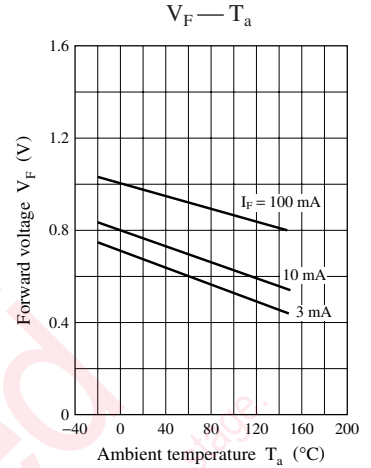
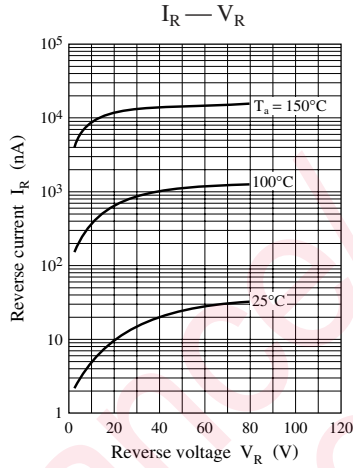
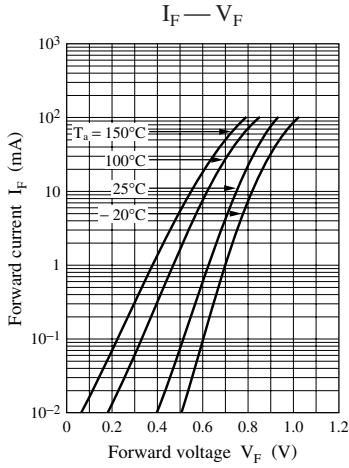
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	$V_F$	$I_F = 100 \text{ mA}$		0.95	1.20	V
Reverse voltage	$V_R$	$I_R = 100 \mu\text{A}$	80			V
Reverse current	$I_R$	$V_R = 75 \text{ V}$			0.1	$\mu\text{A}$
Terminal capacitance	$C_t$	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$		0.9	2.0	pF
Reverse recovery time *	$t_{rr}$	$I_F = 10 \text{ mA}, V_R = 6 \text{ V}$ $I_{rr} = 0.1 I_R, R_L = 100 \Omega$			3	ns

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

2. Absolute frequency of input and output is 100 MHz.

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





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