

MA4Z713 (MA4S713)

Silicon epitaxial planar type

For switching

For wave detection

■ Features

- Two isolated elements are contained in one package, allowing high-density mounting
- Forward voltage V_F , optimum for low voltage rectification
- Optimum for high frequency rectification because of its short reverse recovery time (t_{rr})

■ Package

- Code
SMini4-F1
- Pin Name

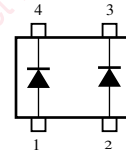
1: Anode 1 3: Cathode 2
2: Anode 2 4: Cathode 1

■ Marking Symbol: M1N

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

Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	30	V
Maximum peak reverse voltage	V_{RM}	30	V
Peak forward current	Single	I_{FM}	150
	Double *		110
Forward current	Single	I_F	30
	Double *		20
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

■ Internal Connection



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

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

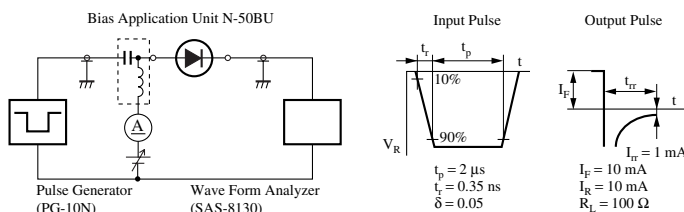
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current	I_R	$V_R = 30\text{ V}$			1	μA
Forward voltage	V_{F1}	$I_F = 1\text{ mA}$			0.4	V
	V_{F2}	$I_F = 30\text{ mA}$			1.0	
Terminal capacitance	C_t	$V_R = 1\text{ V}, f = 1\text{ MHz}$		1.5		pF
Reverse recovery time *	t_{rr}	$I_F = I_R = 10\text{ mA}$ $I_{rr} = 1\text{ mA}, R_L = 100\ \Omega$		1.0		ns
Detection efficiency	η	$V_{in} = 3\text{ V}_{(peak)}, f = 30\text{ MHz}$ $R_L = 3.9\text{ k}\Omega, C_L = 10\text{ pF}$		65		%

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

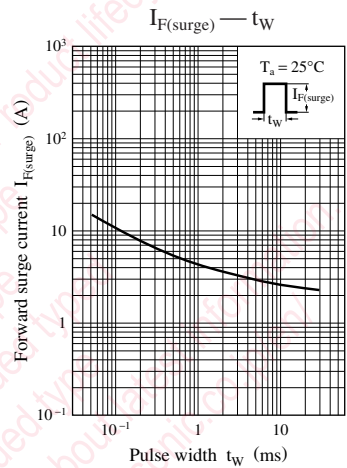
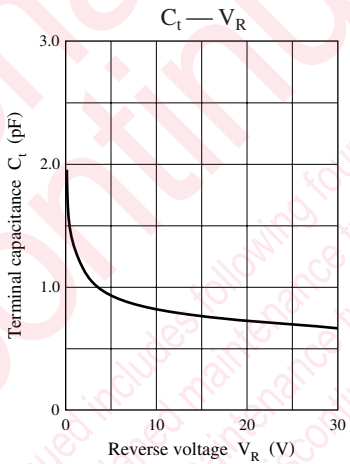
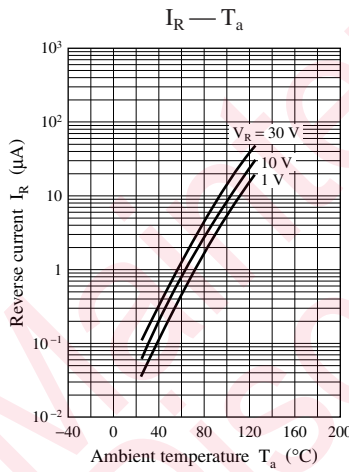
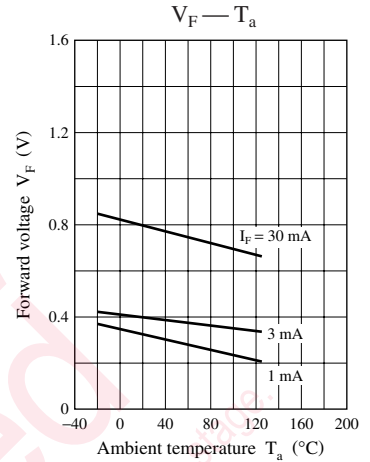
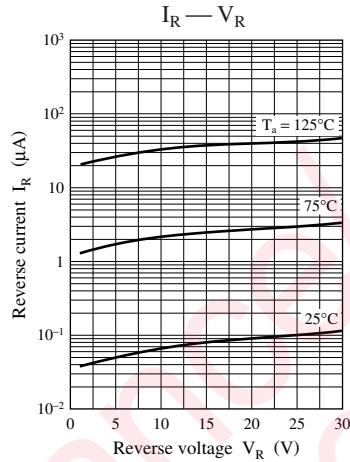
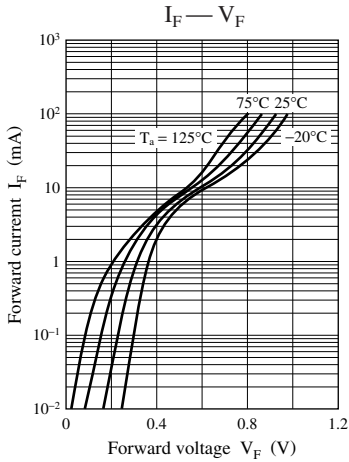
2. This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.

3. Absolute frequency of input and output is 2 GHz.

4. *: t_{rr} measurement circuit



Note) The part number in the parenthesis shows conventional part number.



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