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

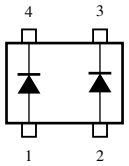
■ Package

- Code
  SMini4-F1
- Pin Name

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

■ Marking Symbol: M1B

■ Internal Connection



■ Absolute Maximum Ratings $T_a = 25°C$

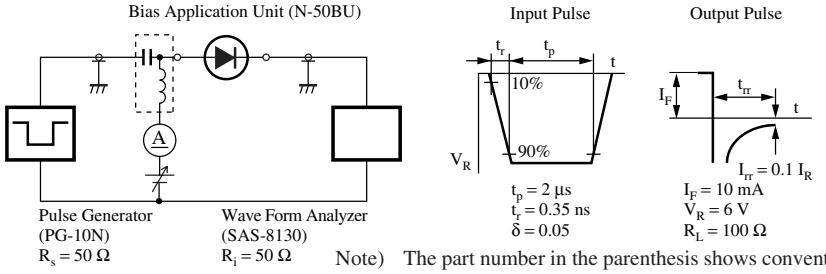
Parameter		Symbol	Rating	Unit
Reverse voltage		V_R	80	V
Maximum peak reverse voltage		V_{RM}	80	V
Forward current	Single	I_F	100	mA
	Double		75	
Peak forward current	Single	I_{FM}	225	mA
	Double		170	
Non-repetitive peak forward surge current*	Single	I_{FSM}	500	mA
	Double		375	
Junction temperature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

Note) ∗: t = 1 s

■ Electrical Characteristics $T_a = 25°C \pm 3°C$

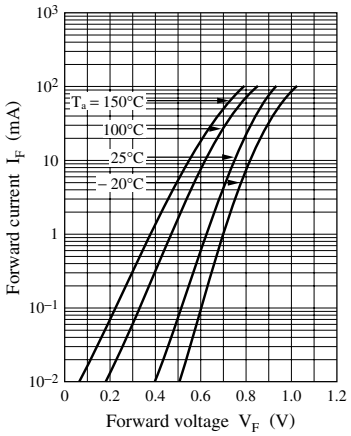
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	I_F = 100 mA		0.95	1.20	V
Reverse voltage	V_R	I_R = 100 µA	80			V
Reverse current	I_R	V_R = 75 V			0.1	µA
Terminal capacitance	C_t	V_R = 0 V, f = 1 MHz		0.9	2.0	pF
Reverse recovery time *	t_{rr}	I_F = 10 mA, V_R = 6 V I_{rr} = 0.1 I_R,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

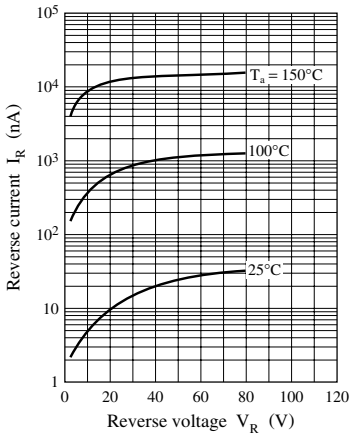


Note) The part number in the parenthesis shows conventional part number.

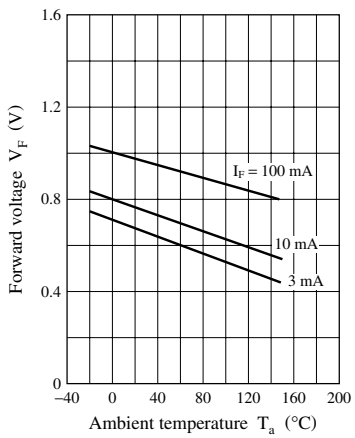
I_F — V_F



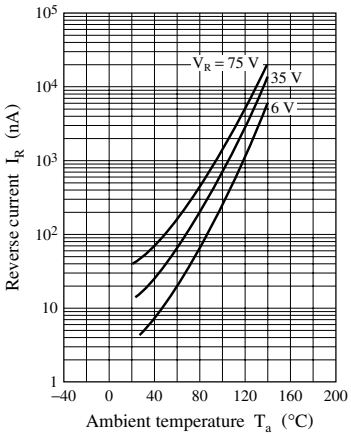
I_R — V_R



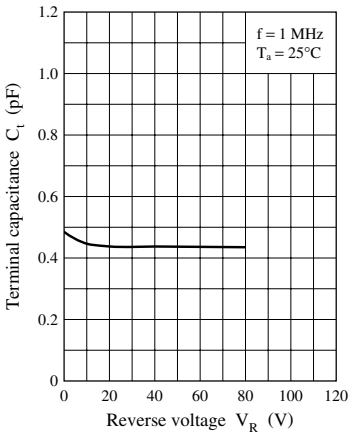
V_F — T_a



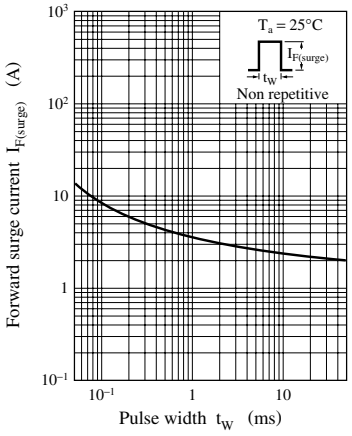
I_R — T_a



C_t — V_R



$I_{F(surge)}$ — t_W



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