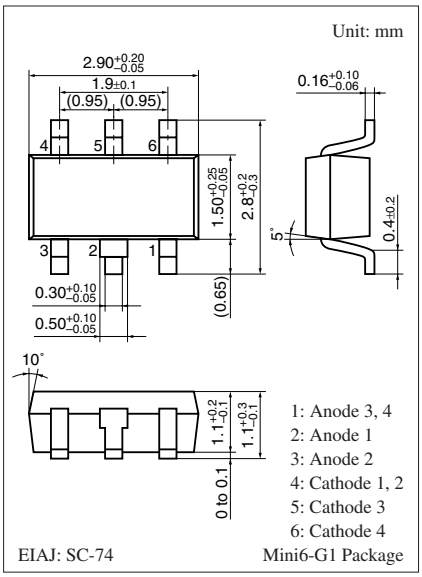
MA6X126 (MA126)

Silicon epitaxial planar type

For switching circuit

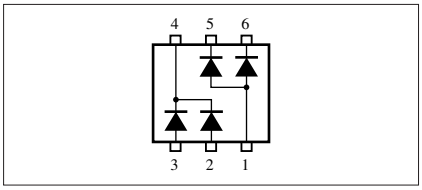
■ Features

- Four isolated elements contained in one package, allowing high-density mounting
- High breakdown voltage: V_R = 80 V



Marking Symbol: M2S

Internal Connection



■ Absolute Maximum Ratings T_a = 25°C

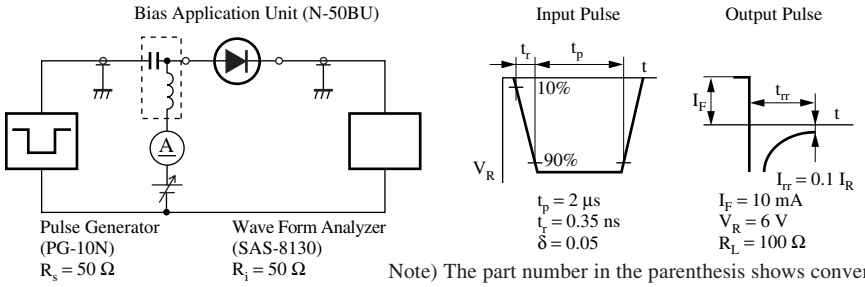
Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	80	V
Maximum peak reverse voltage	V_{RM}	80	V
Forward current *1	I_F	100	mA
Peak forward current *1	I_{FM}	225	mA
Non-repetitive peak forward surge current *1, 2	I_{FSM}	500	mA
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

Note) ∗1: Value for single diode
∗2: t = 1 s

■ Electrical Characteristics T_a = 25°C ± 3°C

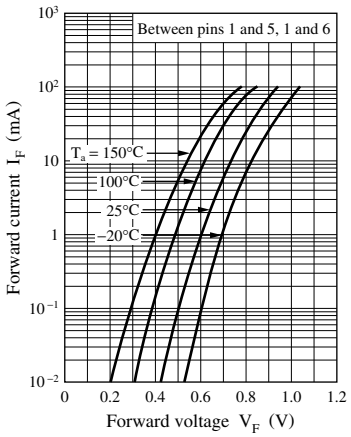
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	I_F = 100 mA			1.2	V
Reverse voltage	V_R	I_R = 100 µA	80			V
Reverse current	I_R	V_R = 75 V			100	nA
Terminal capacitance	C_{t1} *1	V_R = 0 V, f = 1 MHz			15	pF
	C_{t2} *2				2	
Reverse recovery time *3	t_{rr1} *1	I_F = 10 mA, V_R = 6 V			10	ns
	t_{rr2} *2	I_{rr} = 0.1 I_R, R_L = 100 Ω			3	

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. ∗1: Between pins 1 and 5, Between pins 1 and 6
∗2: Between pins 4 and 2, Between pins 4 and 3
∗3: t_{rr} measurement circuit

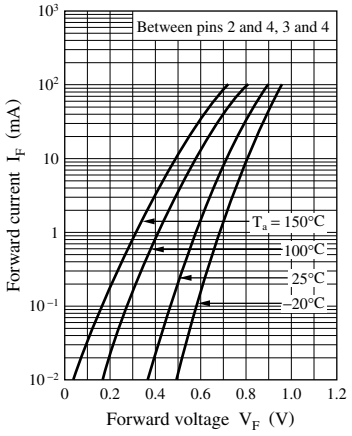


Note) The part number in the parenthesis shows conventional part number.

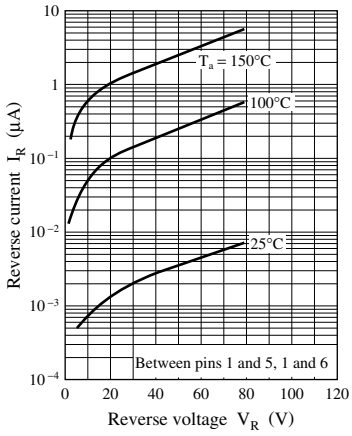
I_F — V_F



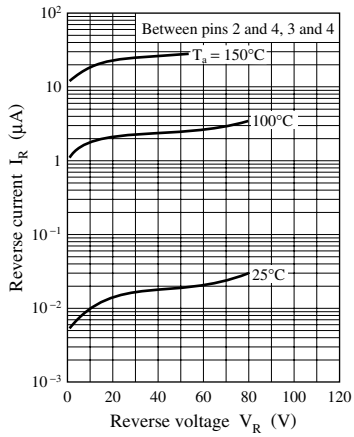
I_F — V_F



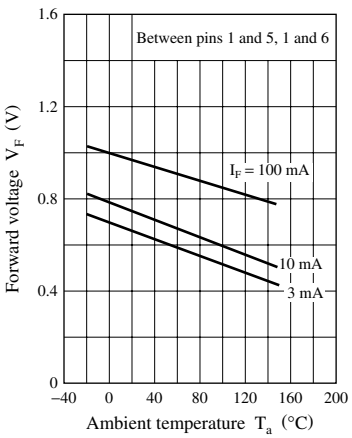
I_R — V_R



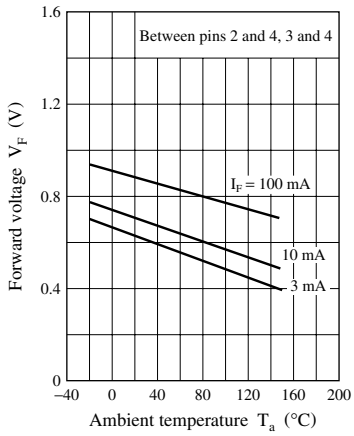
I_R — V_R



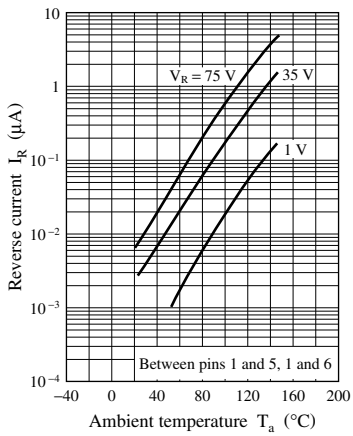
V_F — T_a



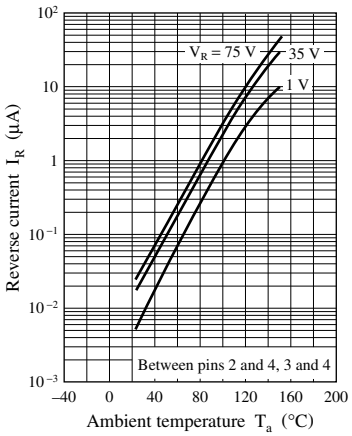
V_F — T_a



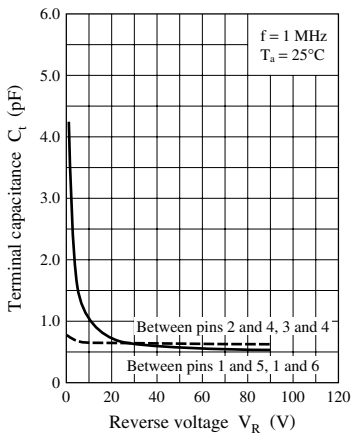
I_R — T_a

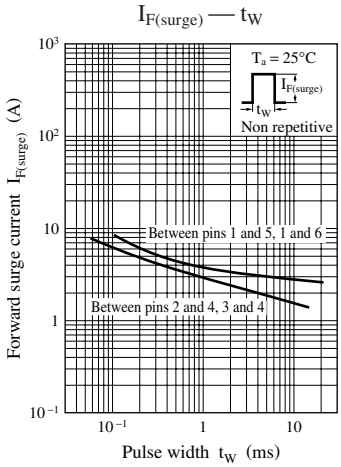


I_R — T_a



C_t — V_R




$I_{F(surge)}$ — t_W
T_a = 25°C
$I_{F(surge)}$
t_W
Non repetitive
Between pins 1 and 5, 1 and 6
Between pins 2 and 4, 3 and 4
Forward surge current $I_{F(surge)}$ (A)
10^3
10^2
10
1
10^{-1}
10^{-1}
1
10
Pulse width t_W (ms)

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