MA6X126 (MA126)

Silicon epitaxial planar type

For switching circuits

■ Features

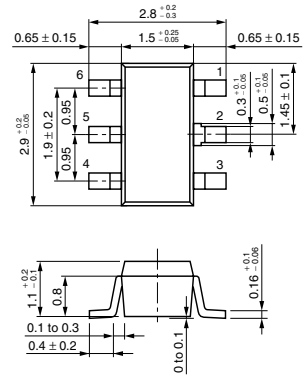
- Four-element contained in one package, allowing high-density mounting
- High breakdown voltage (V_R = 80 V)

■ Absolute Maximum Ratings T_a = 25°C

Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V_R	80	V
Peak reverse voltage	V_{RM}	80	V
Average forward current*1	$I_{F(AV)}$	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

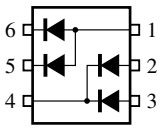
Unit : mm



1 : Anode 3,4 4 : Cathode 1,2
2 : Anode 1 5 : Cathode 3
3 : Anode 2 6 : Cathode 4
Mini Type Package (6-pin)

Marking Symbol: M2S

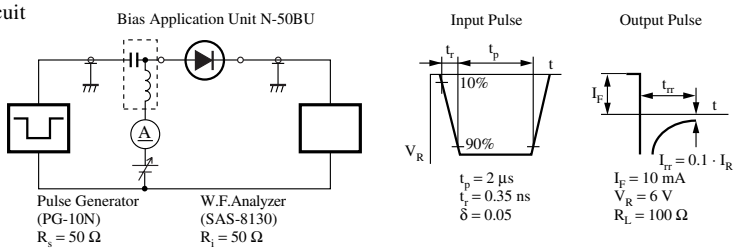
Internal Connection



■ Electrical Characteristics T_a = 25°C

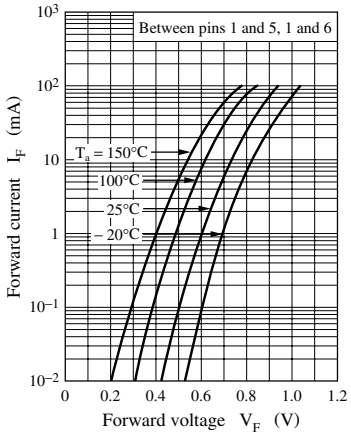
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	I_R	V_R = 75 V			100	nA
Forward voltage (DC)	V_F	I_F = 100 mA			1.2	V
Reverse voltage (DC)	V_R	I_R = 100 µA	80			V
Terminal capacitance	C_{t1}*1	V_R = 0 V, f = 1 MHz			15	pF
	C_{t2}*2	V_R = 0 V, f = 1 MHz			2	pF
Reverse recovery time*3	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. Rated input/output frequency: 100 MHz
2. *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} measuring circuit

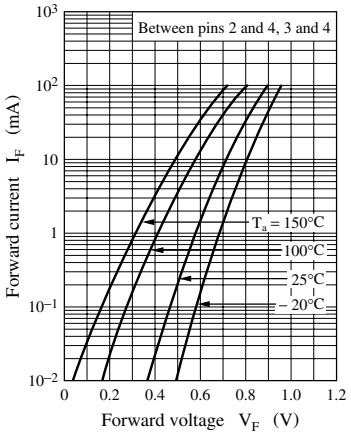


Note) The part number in the parenthesis shows conventional part number.

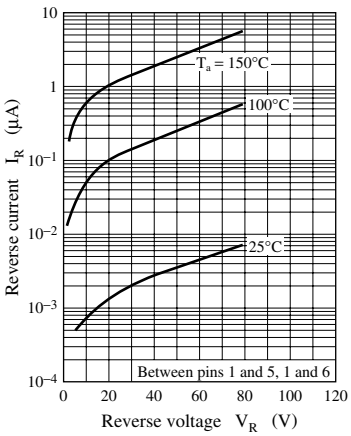
I_F — V_F



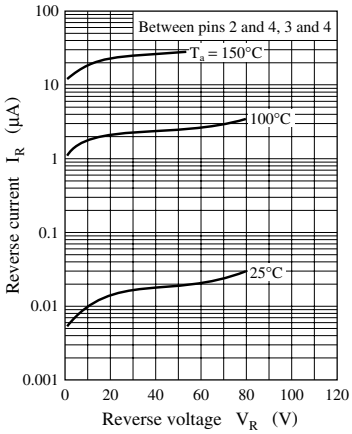
I_F — V_F



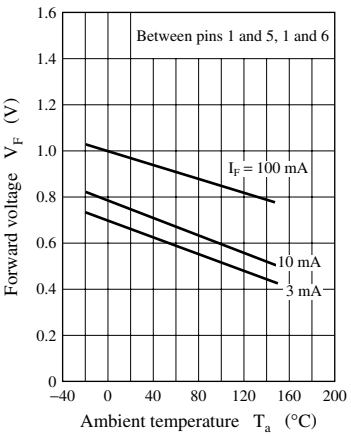
I_R — V_R



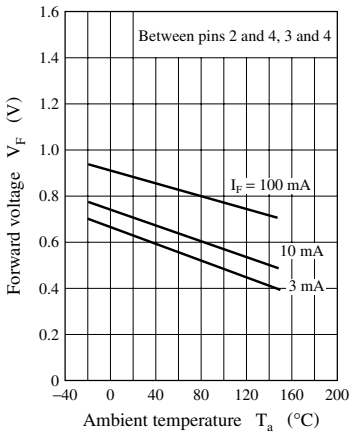
I_R — V_R



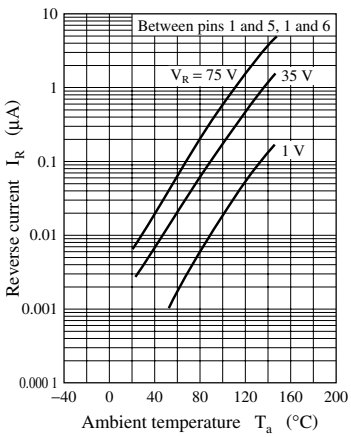
V_F — T_a



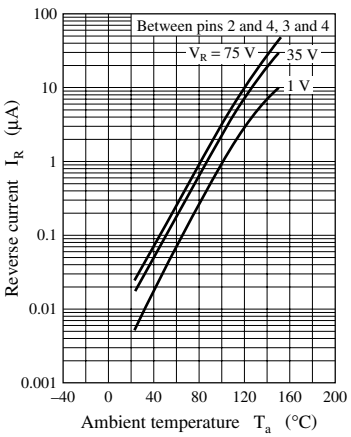
V_F — T_a



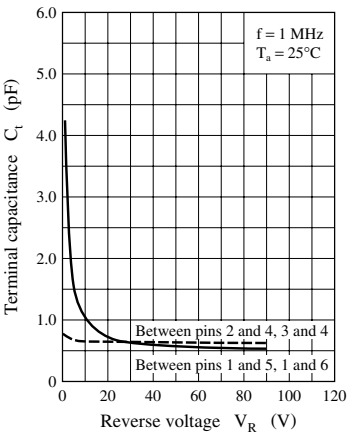
I_R — T_a

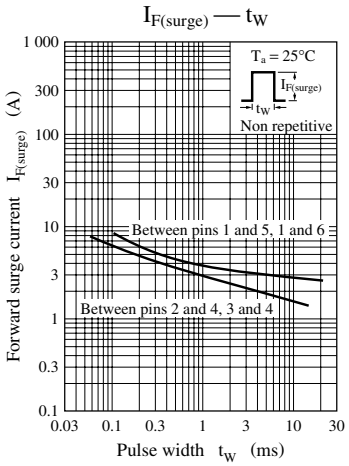


I_R — T_a



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)
1 000
300
100
30
10
3
1
0.3
0.1
0.03
0.1
0.3
1
3
10
30
Pulse width t_W (ms)

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