

MA6S121

Silicon epitaxial planar type

For switching circuit

■ Features

- Small S-mini type 6-pin package
- Three 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

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

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	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

Note) *1 : Value for single diode

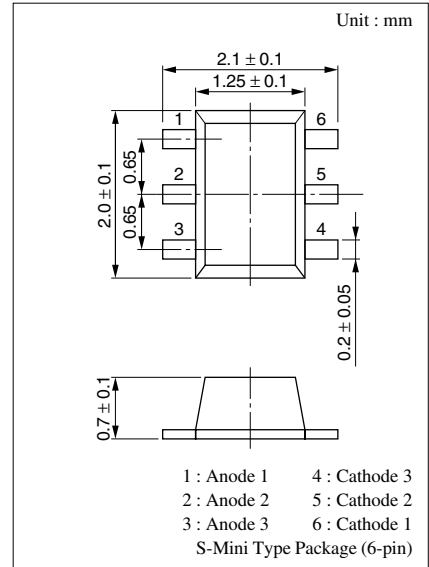
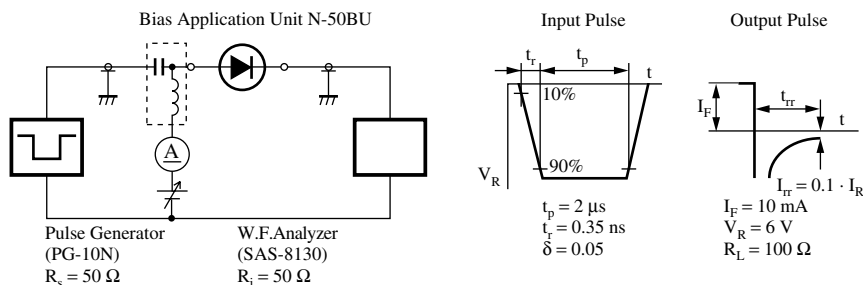
*2 : $t = 1 \text{ s}$

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	I_R	$V_R = 75 \text{ V}$			0.1	μA
Forward voltage (DC)	V_F	$I_F = 100 \text{ mA}$			1.2	V
Reverse voltage (DC)	V_R	$I_R = 100 \mu\text{A}$	80			V
Terminal capacitance	C_t	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$			2	pF
Reverse recovery time*	t_{rr}	$I_F = 10 \text{ mA}, V_R = 6 \text{ V}$ $I_{rr} = 0.1 \cdot I_R, R_L = 100 \Omega$			3	ns

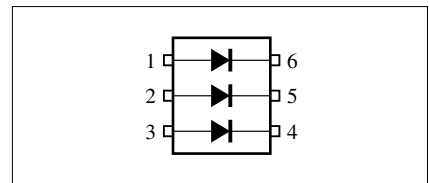
Note) 1. Rated input/output frequency: 100 MHz

2. * : t_{rr} measuring circuit

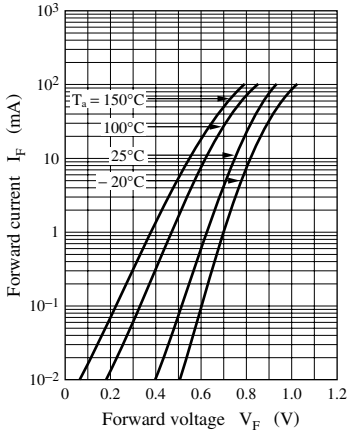


Marking Symbol: M2D

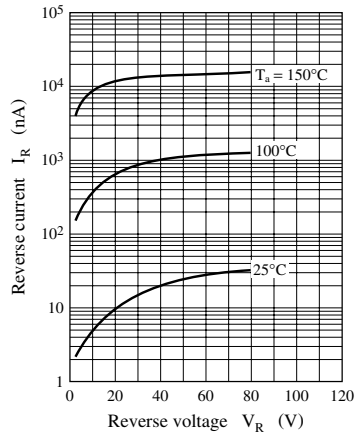
Internal Connection



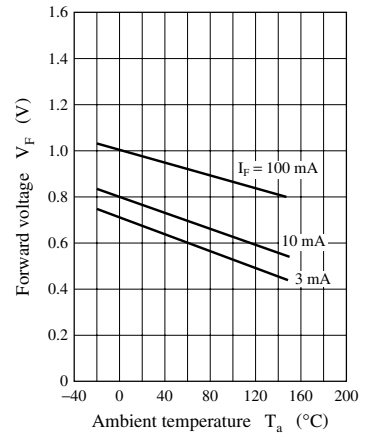
$I_F - V_F$



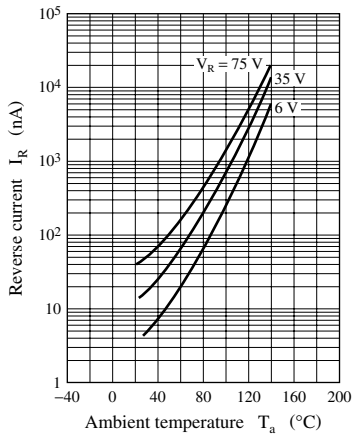
$I_R - V_R$



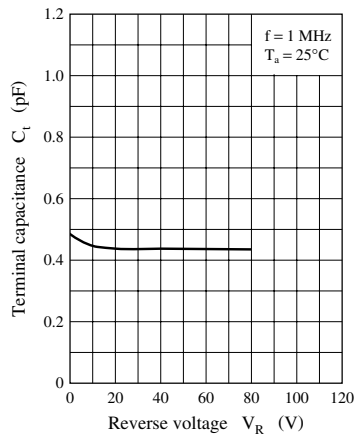
$V_F - T_a$



$I_R - T_a$



$C_t - V_R$



$I_{F(\text{surge})} - t_w$

