

MA4S159

Silicon epitaxial planer type

For switching circuits

■ Features

- Small S-Mini type 4-pin package

▲ Independent incorporating of two elements, enabling high-density mounting

▲ Flat lead type, with improved mounting efficiency and solderability in the high-speed mounting machine

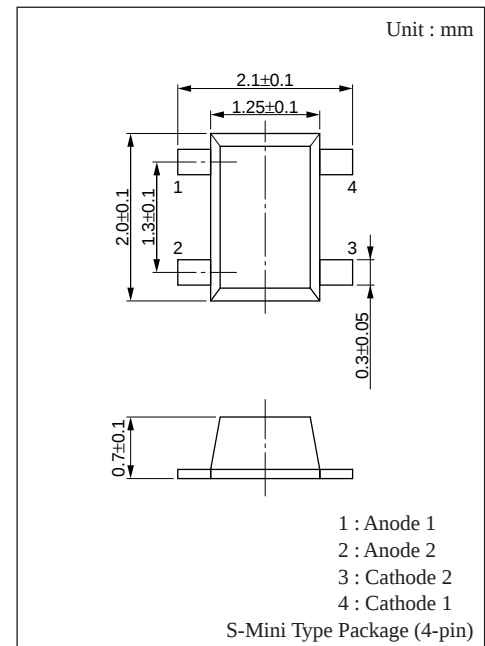
▲ Short reverse recovery period t_{rr}

▲ Small capacity between pins, C_t

■ Absolute Maximum Ratings (Ta= 25°C)

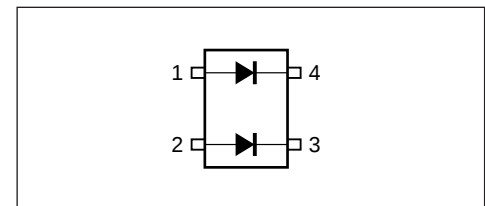
Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V_R	80	V
Peak reverse voltage	V_{RM}	80	V
Average forward current	Single	$I_{F(AV)}$	100
	Double	$I_{F(AV)}$	75
Peak forward current	Single	I_{FM}	225
	Double	I_{FM}	170
Non-repetitive peak forward surge current	Single	I_{FSM}^*	500
	Double	I_{FSM}^*	375
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	- 55 to +150	°C

* $t=1s$



Marking Symbol : M1B

■ Internal Connection

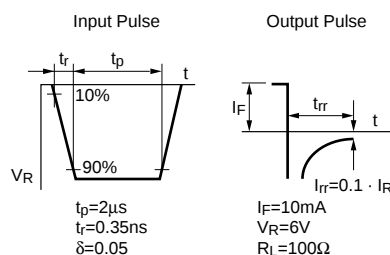
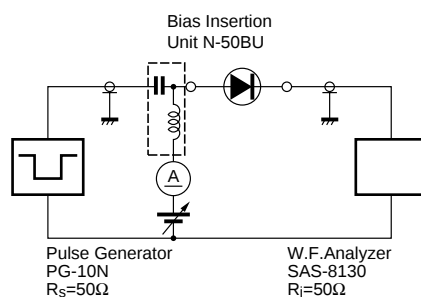


■ Electrical Characteristics (Ta= 25°C)

Parameter	Symbol	Condition	min	typ	max	Unit
Reverse current (DC)	I_R	$V_R=75V$			0.1	μA
Forward voltage (DC)	V_F	$I_F=100mA$		0.95	1.2	V
Reverse voltage (DC)	V_R	$I_R=100\mu A$	80			V
Terminal capacitance	C_t	$V_R=0V, f=1MHz$		0.9	2	pF
Reverse recovery time	t_{rr}^*	$I_F=10mA, V_R=6V$ $I_{rr}=0.1 \cdot I_R, R_L=100\Omega$			3	ns

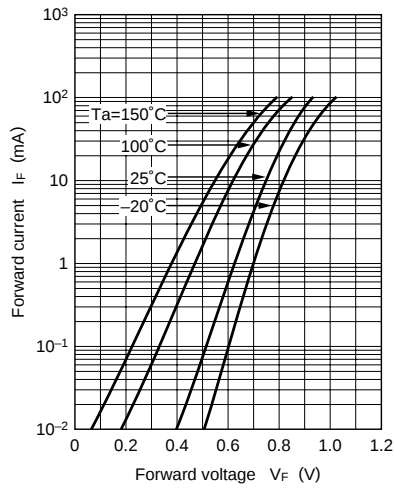
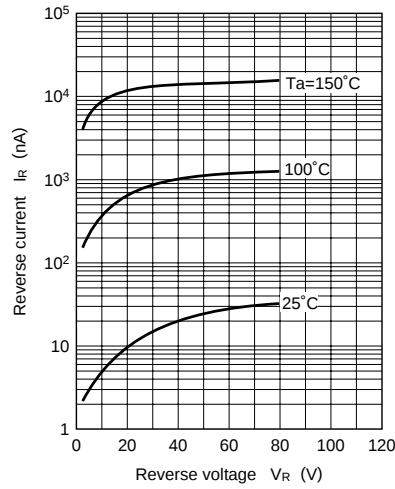
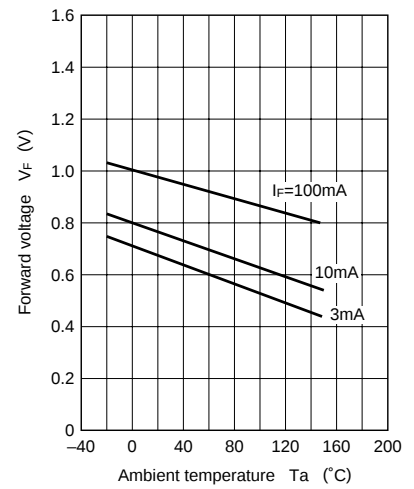
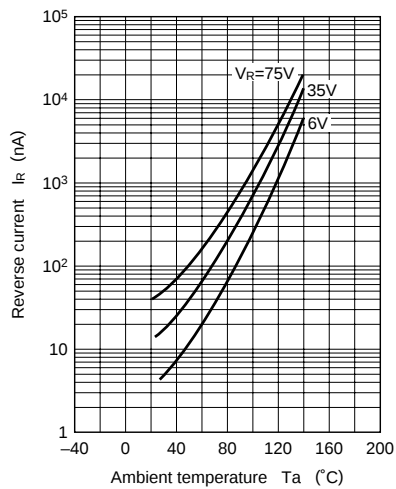
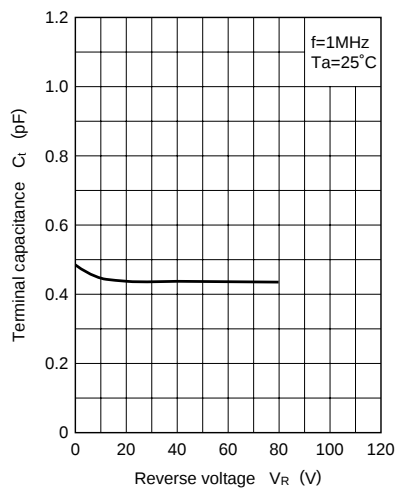
Note 1 : Rated input/output frequency : 100MHz

2 : * t_{rr} measuring circuit



■ Marking



$I_F - V_F$  $I_R - V_R$  $V_F - T_a$  $I_R - T_a$  $C_t - V_R$  $I_F(\text{surge}) - t_w$ 