

MA10700

Silicon epitaxial planer type

For high-frequency rectification

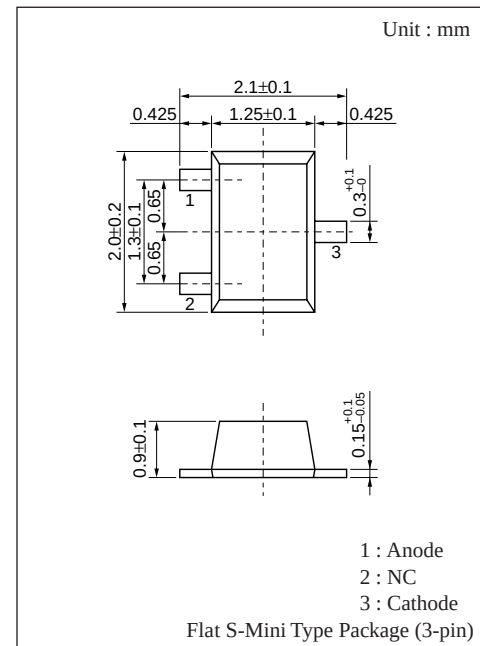
■ Features

- S-Mini type package (3-pin)
- $I_{F(AV)} = 500\text{mA}$ rectification possible
- Fast t_{rr} (reverse recovery time), optimum for high-frequency rectification

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

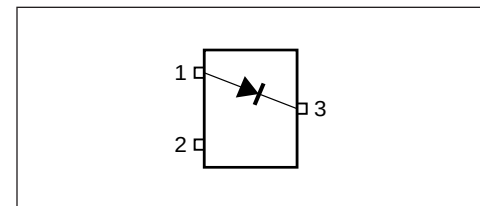
Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V_R	40	V
Repetitive peak reverse voltage	V_{RRM}	40	V
Average forward current	$I_{F(AV)}$	500	mA
Non-repetitive peak forward surge current	I_{FSM}^*	2	A
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	- 55 to + 150	$^\circ\text{C}$

* 50Hz sine wave, one-cycle wave, high value (non-repetitive)



Marking Symbol : M2W

■ Internal Connection



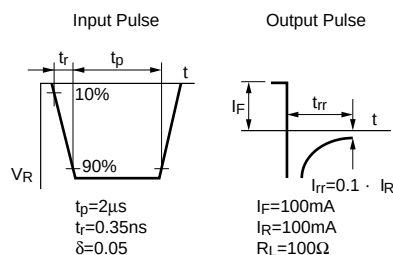
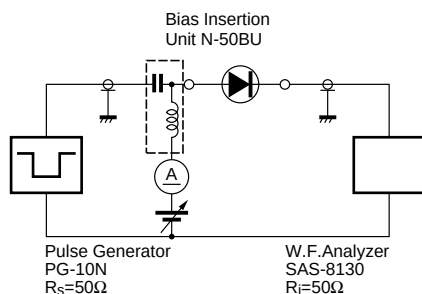
■ Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Condition	min	typ	max	Unit
Reverse current (DC)	I_R	$V_R = 35\text{V}$			100	μA
Forward voltage (DC)	V_F	$I_F = 500\text{mA}$			0.55	V
Terminal capacitance	C_t	$V_R = 0\text{V}$, $f = 1\text{MHz}$		60		pF
Reverse recovery time	t_{rr}^*	$I_F = I_R = 100\text{mA}$ $I_{rr} = 0.1 \cdot I_R$, $R_L = 100\Omega$		5		ns

Note 1. Schottky barrier diode is sensitive to electric shock (static electricity, etc.). Due attention must be paid on charge of a human body and leakage from the equipment used.

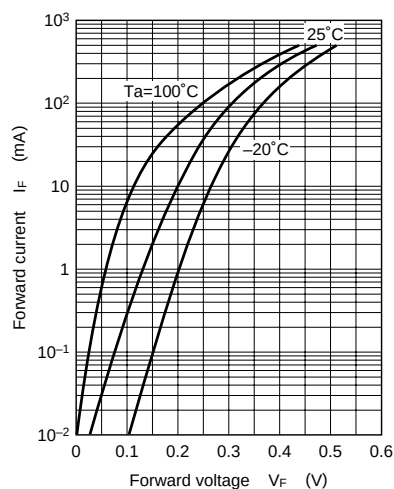
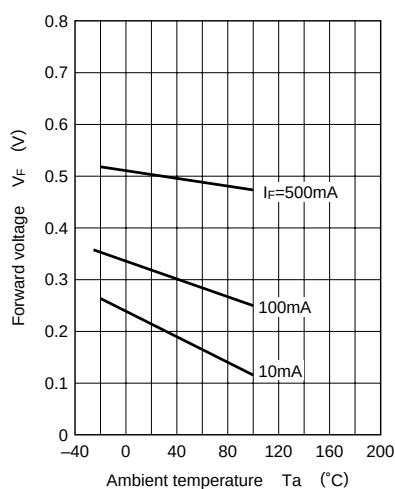
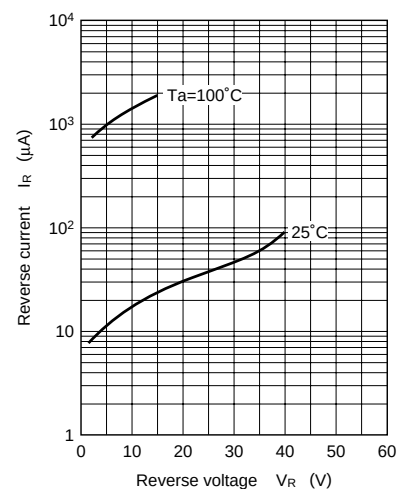
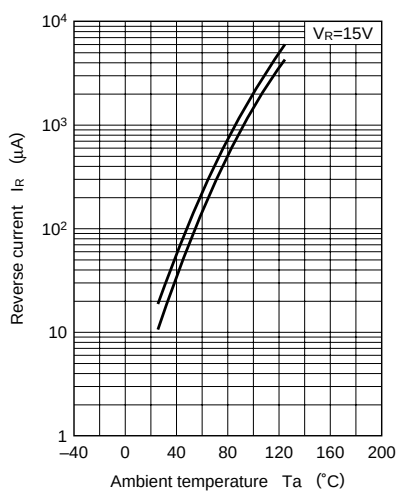
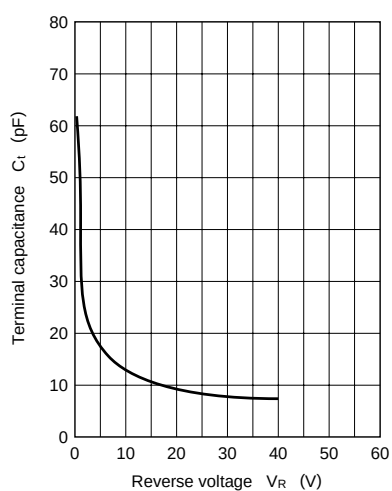
2. Rated input/output frequency : 400MHz

3. * t_{rr} measuring circuit



■ Marking



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