

MA10702

Silicon epitaxial planer type

For high-frequency rectification

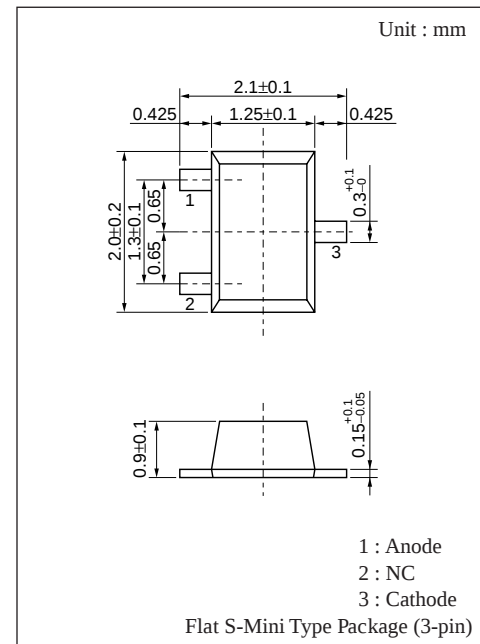
■ Features

- S-Mini type package (3-pin)
- $I_{F(AV)} = 500\text{mA}$ rectification possible
- Low I_R (reverse current) type. (About 1/10 of ordinary product)

■ Absolute Maximum Ratings (Ta= 25°C)

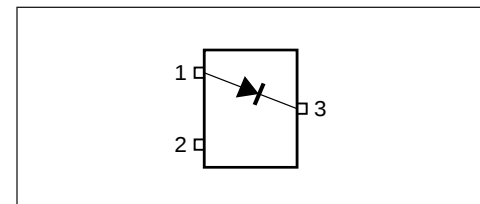
Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V_R	20	V
Repetitive peak reverse voltage	V_{RRM}	20	V
Average forward current	$I_{F(AV)}$	500	mA
Non-repetitive peak forward surge current	I_{FSM}^*	3	A
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	- 55 to + 125	°C

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



Marking Symbol : M4R

■ Internal Connection



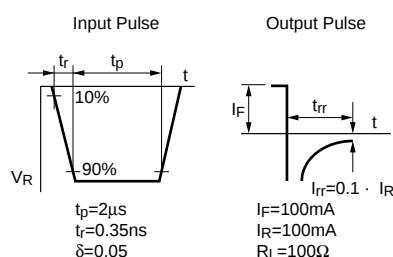
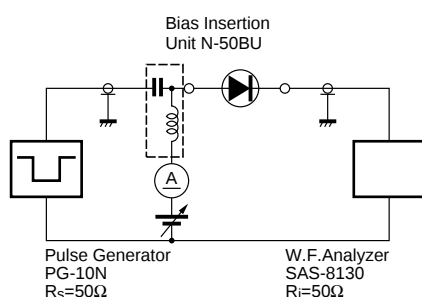
■ Electrical Characteristics (Ta= 25°C)

Parameter	Symbol	Condition	min	typ	max	Unit
Reverse current (DC)	I_{R1}	$V_R = 5V$			1	μA
	I_{R2}	$V_R = 10V$			10	μA
Forward voltage (DC)	V_{F1}	$I_F = 10\text{mA}$		0.3	0.4	V
	V_{F2}	$I_F = 500\text{mA}$		0.5	0.55	V
Terminal capacitance	C_t	$V_R = 0V, f = 1\text{MHz}$		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.

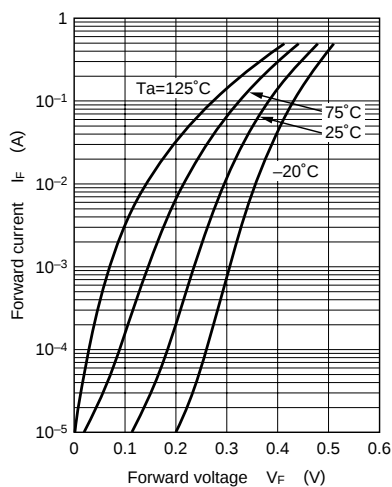
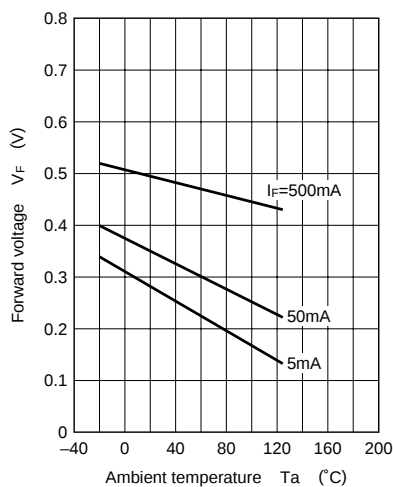
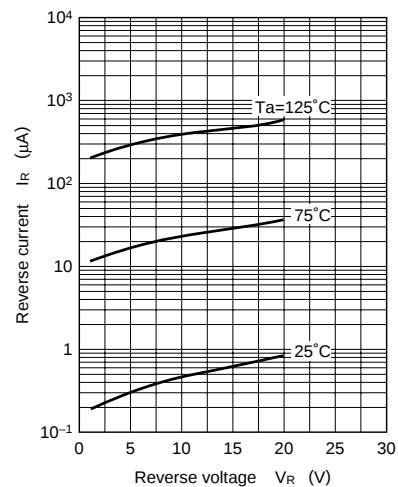
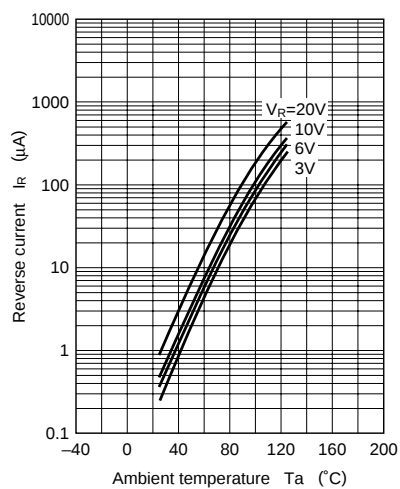
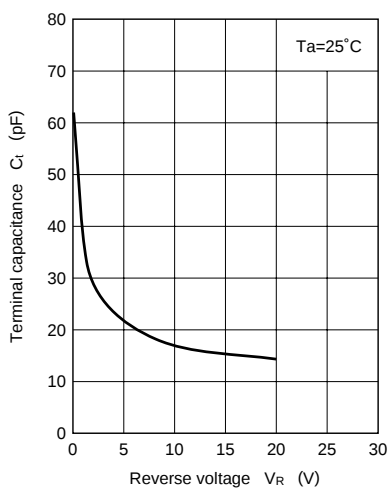
2. Rated input/output frequency : 400MHz

3. * t_{rr} measuring circuit



■ Marking



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