

MA3S781 (MA781)

Silicon epitaxial planar type

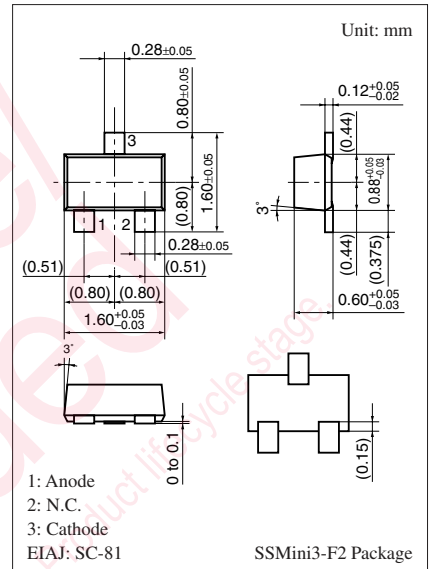
For switching

■ Features

- High-density mounting is possible
- Optimum for high frequency rectification because of its short reverse recovery time t_{rr}
- Low forward voltage V_F and good rectification efficiency

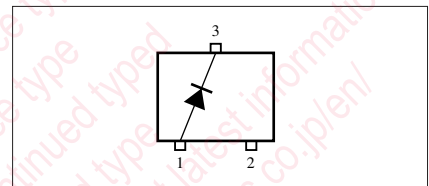
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	30	V
Maximum peak reverse voltage	V_{RM}	30	V
Forward current	I_F	30	mA
Peak forward current	I_{FM}	150	mA
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +125	$^\circ\text{C}$



Marking Symbol: M1L

Internal Connection



■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

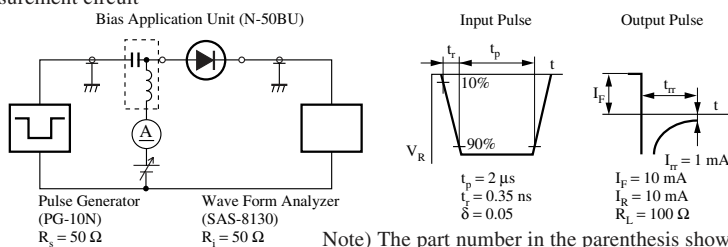
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_{F1}	$I_F = 1 \text{ mA}$			0.4	V
	V_{F2}	$I_F = 30 \text{ mA}$			1.0	
Reverse current	I_R	$V_R = 30 \text{ V}$			300	nA
Terminal capacitance	C_t	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$		1.5		pF
Reverse recovery time *	t_{rr}	$I_F = I_R = 10 \text{ mA}$ $I_{tr} = 1 \text{ mA}, R_L = 100 \Omega$		1.0		ns
Detection efficiency	η	$V_{IN} = 3 \text{ V (peak)}, f = 30 \text{ MHz}$ $R_L = 3.9 \text{ k}\Omega, C_L = 10 \text{ pF}$		65		%

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

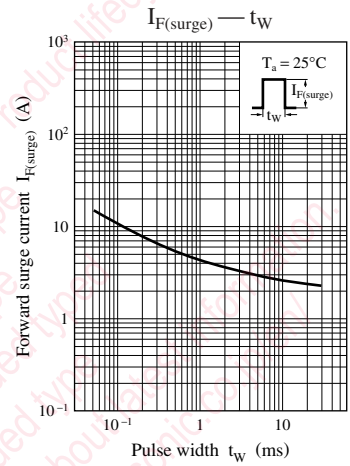
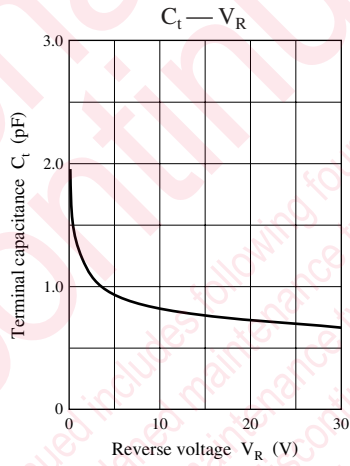
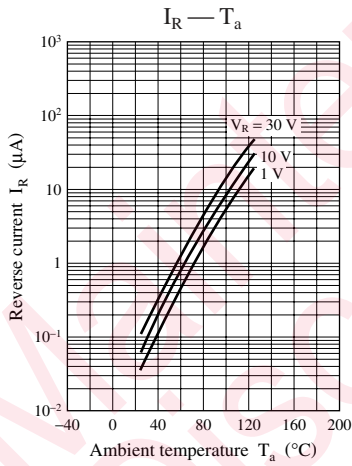
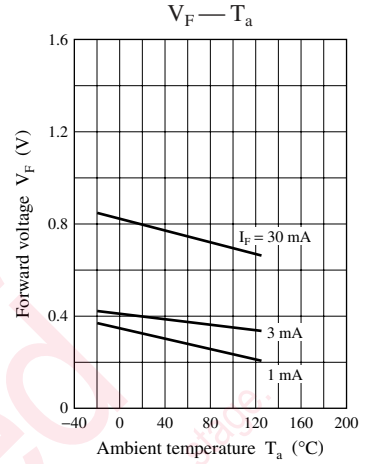
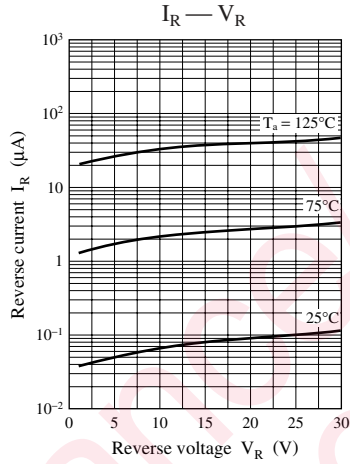
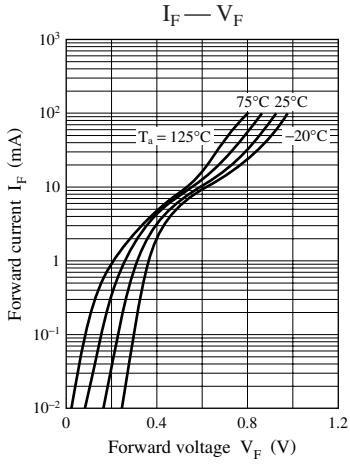
2. This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.

3. Absolute frequency of input and output is 2 GHz.

4. *: t_{rr} measurement circuit



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



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