

# MA3S781 (MA781)

Silicon epitaxial planar type

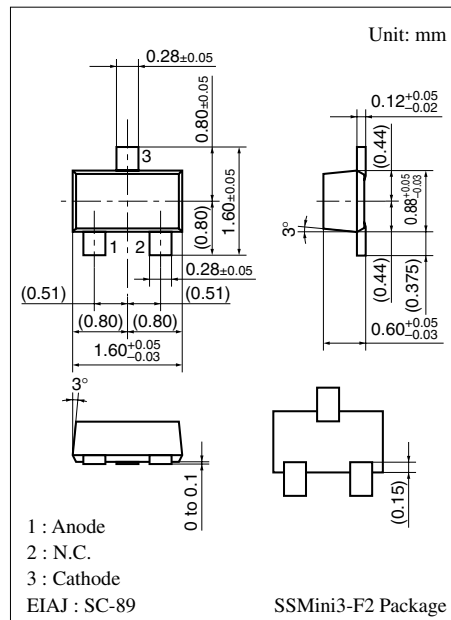
For switching

■ 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
- SS-Mini type 3-pin package

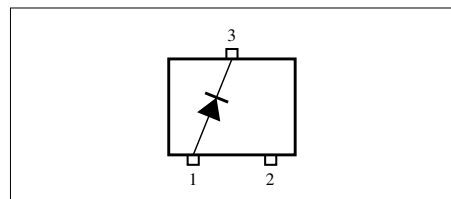
■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	$V_R$	30	V
Peak reverse voltage	$V_{RM}$	30	V
Forward current (DC)	$I_F$	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

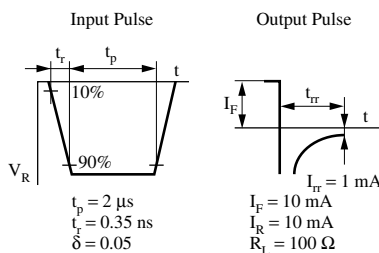
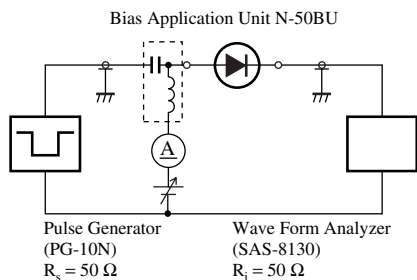


■ Electrical Characteristics  $T_a = 25^\circ\text{C}$

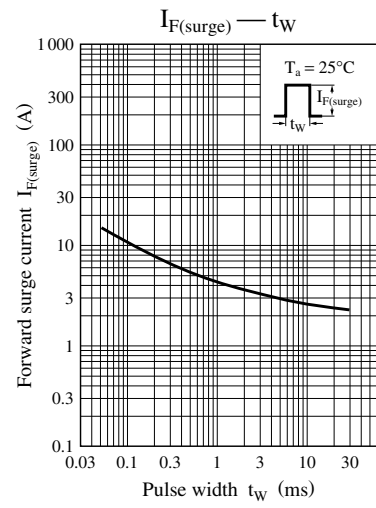
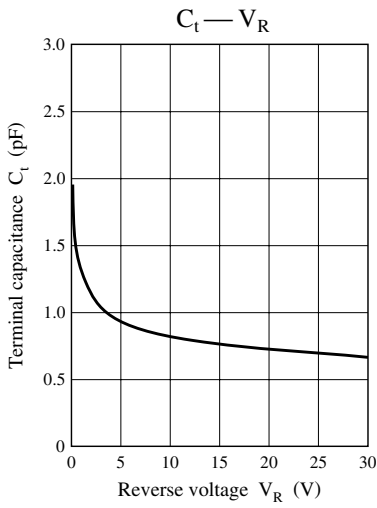
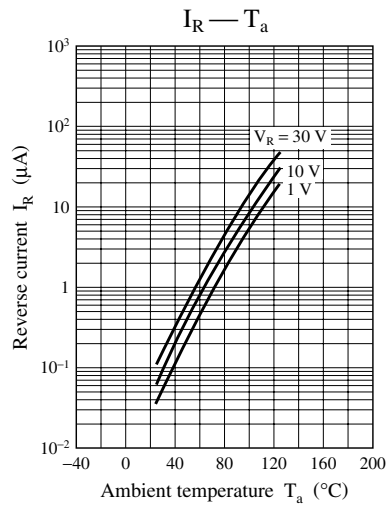
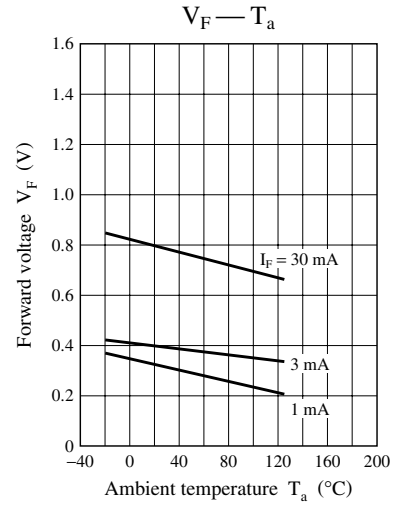
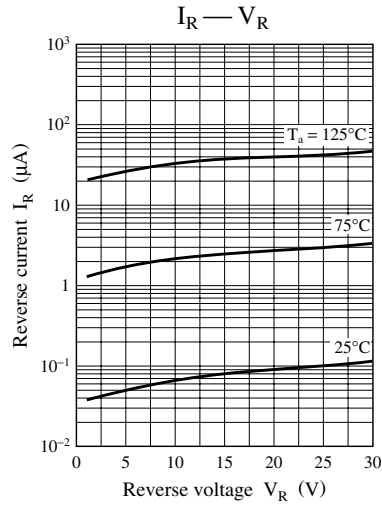
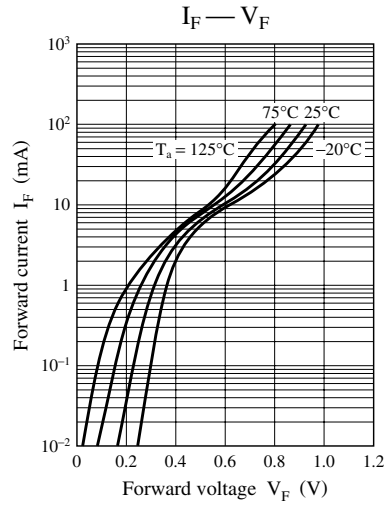
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	$I_R$	$V_R = 30\text{ V}$			300	nA
Forward voltage (DC)	$V_{F1}$	$I_F = 1\text{ mA}$			0.4	V
	$V_{F2}$	$I_F = 30\text{ mA}$			1	
Terminal capacitance	$C_t$	$V_R = 1\text{ V}, f = 1\text{ MHz}$		1.5		pF
Reverse recovery time *	$t_{rr}$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

Note) 1. 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.

2. Rated input/output frequency: 2 GHz      3. \*:  $t_{rr}$  measuring instrument



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



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