

MA3S781D (MA781WA), MA3S781E (MA781WK)

Silicon epitaxial planar type

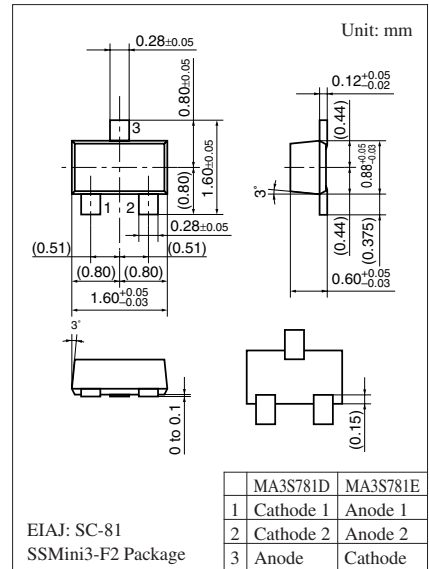
For high speed switching

■ Features

- Two MA3S781 (MA781) is contained in one package
- High-density mounting is possible
- Low forward voltage V_F

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

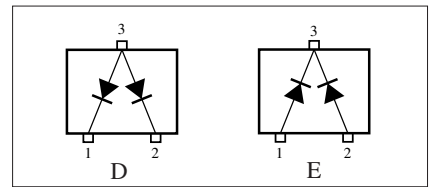
Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	30	V
Maximum peak reverse voltage	V_{RM}	30	V
Forward current	Single	I_F	30
	Double		20
Peak forward current	Single	I_{FM}	150
	Double		110
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +125	$^\circ\text{C}$



Marking Symbol

- MA3S781D: M2P
- MA3S781E: M2R

Internal Connection



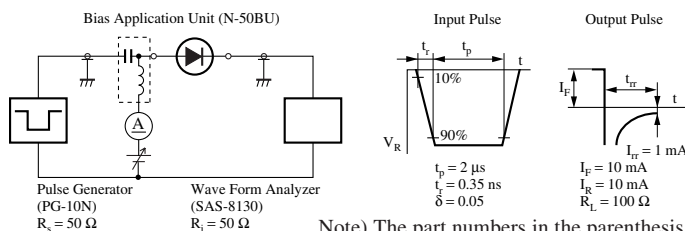
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

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	$V_R = 30 \text{ V}$			1	μA
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		%

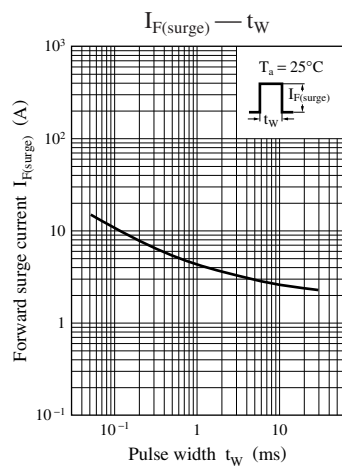
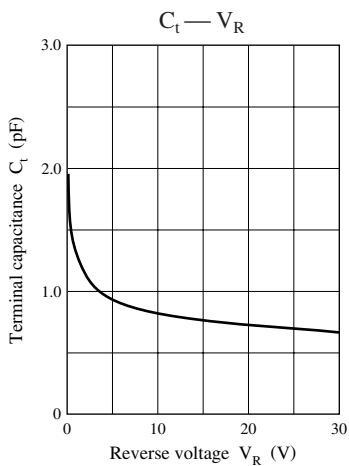
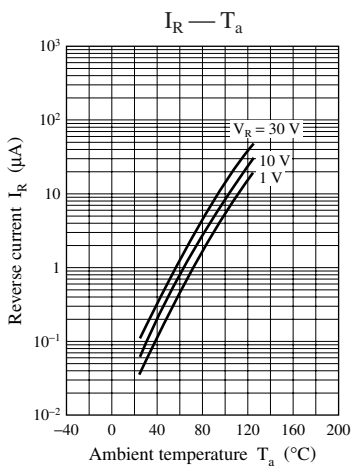
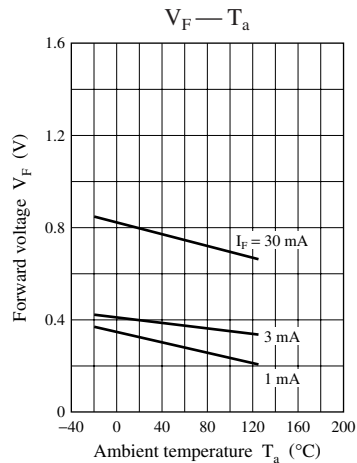
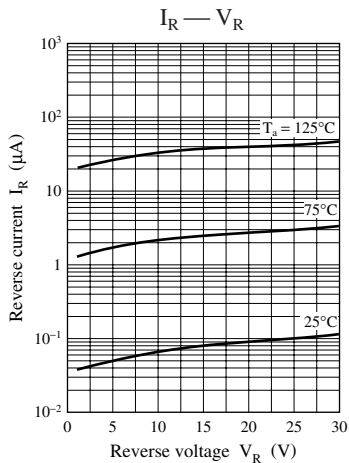
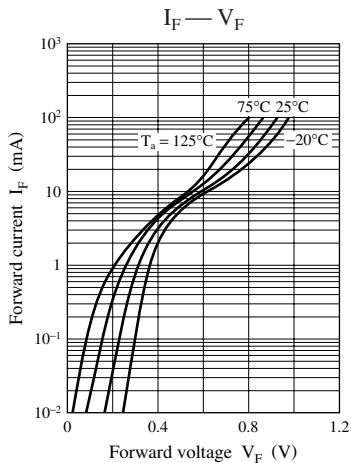
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

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 numbers in the parenthesis show conventional part number.



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