

# MA3S781DG, MA3S781EG

Silicon epitaxial planar type

For high speed switching

For wave detection

■ Features

- Two MA3S7810G is contained in one package
- High-density mounting is possible
- Low forward voltage  $V_F$

■ Package

- Code  
SSMini3-F3
- Pin Name  
MA3S781DG      MA3S781EG  
1: Cathode 1      1: Anode 1  
2: Cathode 2      2: Anode 2  
3: Anode            3: Cathode

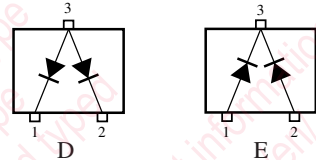
■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$

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

MA3S781DG: M2P  
MA3S781EG: M2R

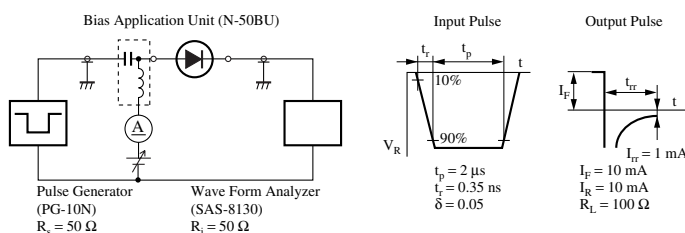
■ Internal Connection

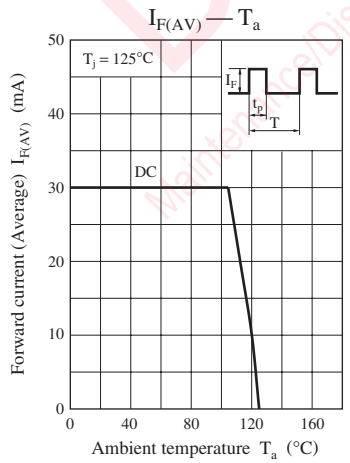
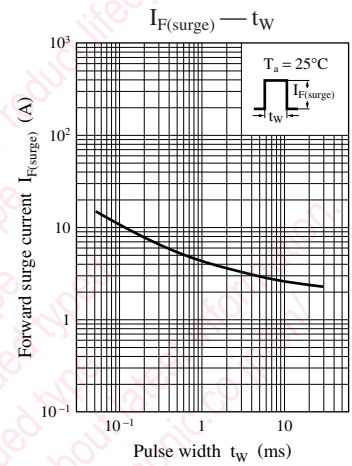
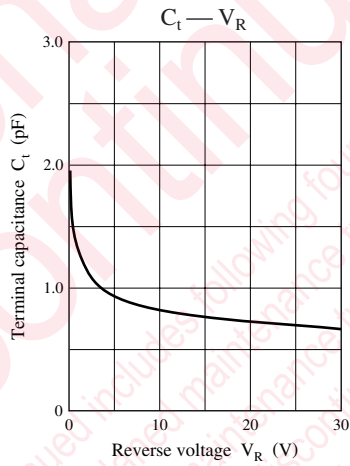
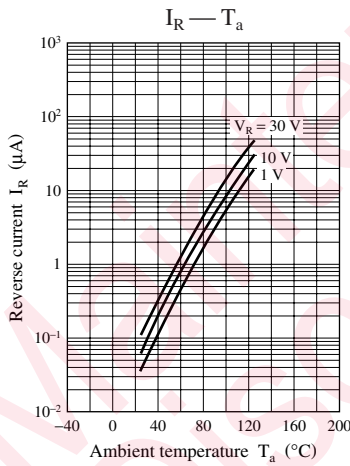
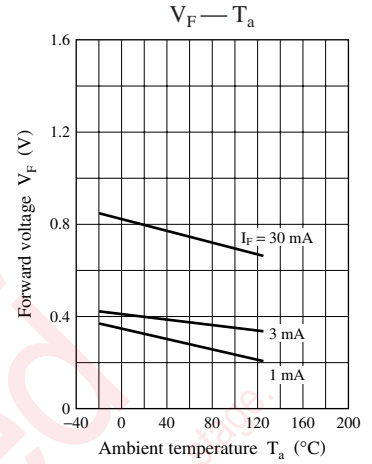
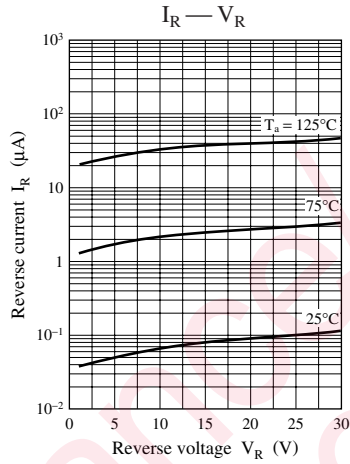
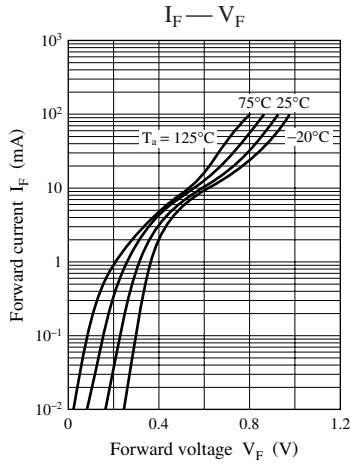


■ Electrical Characteristics  $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

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	$\mu\text{A}$
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		%

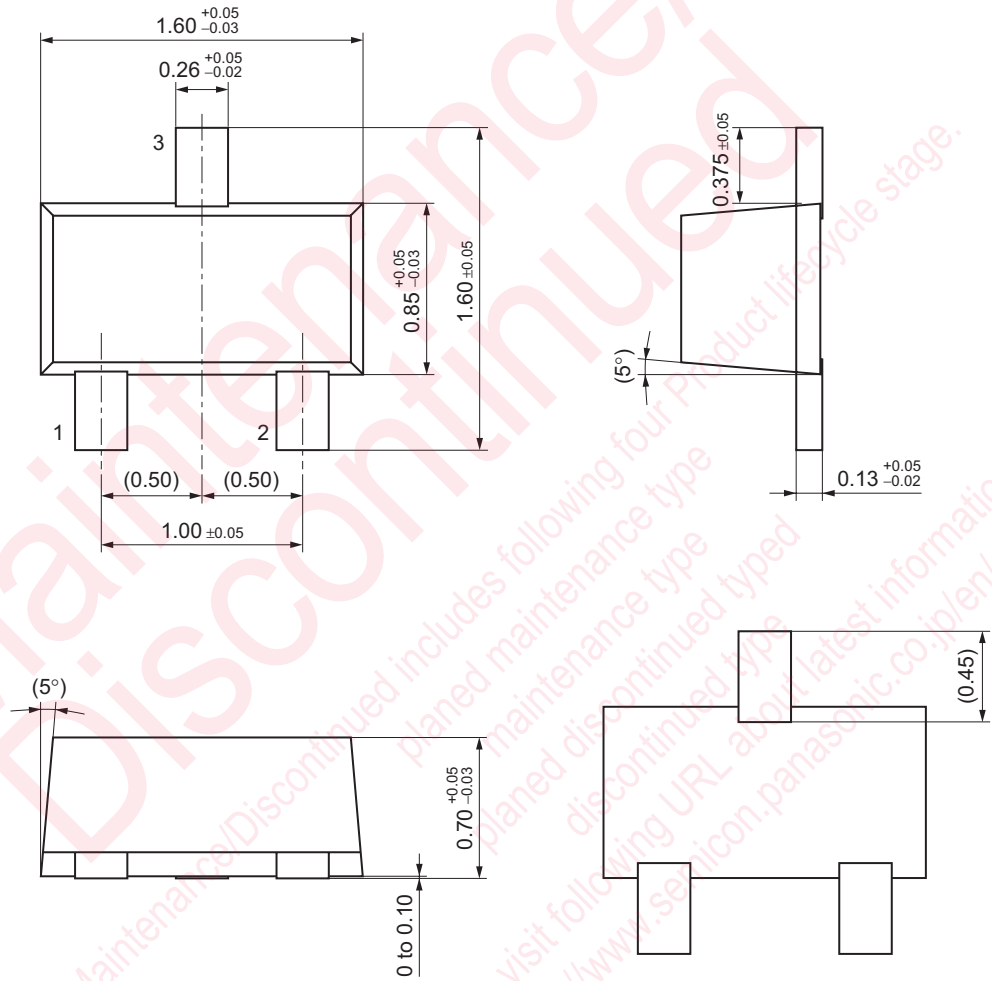
- Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.  
2. This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.  
3. Absolute frequency of input and output is 2 GHz. 4. \*:  $t_{rr}$  measurement circuit





SSMini3-F3

Unit: mm



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