## **MA27728**

### Silicon epitaxial planar type

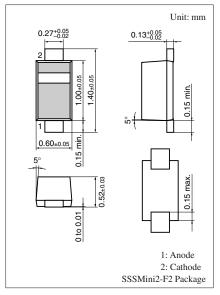
For switching circuits

#### ■ Features

- High-density mounting is possible
- $\bullet$  Low forward voltage  $V_F$  and good wave detection efficiency  $\eta$
- Small temperature coefficient of forward characteristic
- Small reverse current I<sub>R</sub>

#### ■ Absolute Maximum Ratings $T_a = 25$ °C

Parameter	Symbol	Rating	Unit
Reverse voltage	$V_R$	30	V
Maximum peak reverse voltage	V <sub>RM</sub>	30	V
Forward current	$I_F$	30	mA
Peak forward current	$I_{FM}$	150	mA
Junction temperature	T <sub>j</sub>	125	°C
Storage temperature	T <sub>stg</sub>	-55 to +125	°C

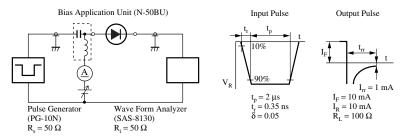


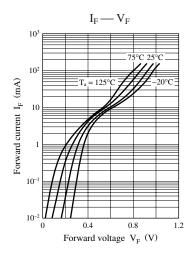
Marking Symbol: R

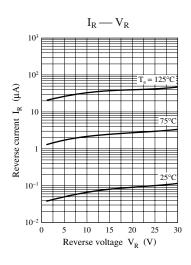
#### ■ Electrical Characteristics $T_a = 25$ °C $\pm 3$ °C

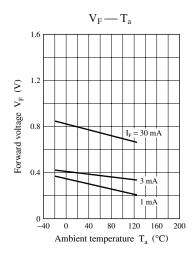
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Forward voltage	V <sub>F1</sub>	$I_F = 1 \text{ mA}$			0.4	V
	V <sub>F2</sub>	$I_F = 30 \text{ mA}$			1.0	
Reverse current	$I_R$	$V_R = 30 \text{ V}$			300	nA
Terminal capacitance	C <sub>t</sub>	$V_R = 1 \text{ V, } f = 1 \text{ MHz}$		1.5		pF
Reverse recovery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

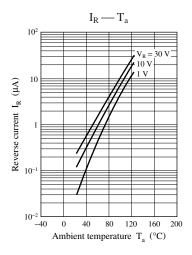
- Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.
  - 2. This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.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

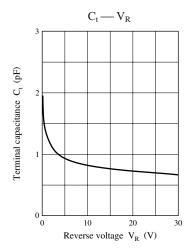


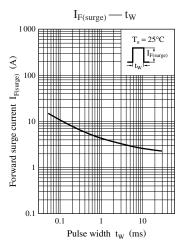












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