

MA4X746 (MA746)

Silicon epitaxial planar type

For super high speed switching
For small current rectification

■ Features

- Two isolated elements are contained in one package, allowing high-density mounting
- Forward current (Average) $I_{F(AV)} = 200$ mA and Reverse voltage $V_R < 50$ V are achieved
- 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	50	V
Repetitive peak reverse voltage	V_{RRM}	50	V
Non-repetitive peak forward surge current	Single	1	A
	Double *	0.75	
Peak forward current	Single	300	mA
	Double *	225	
Forward current (Average)	Single	200	mA
	Double *	150	
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

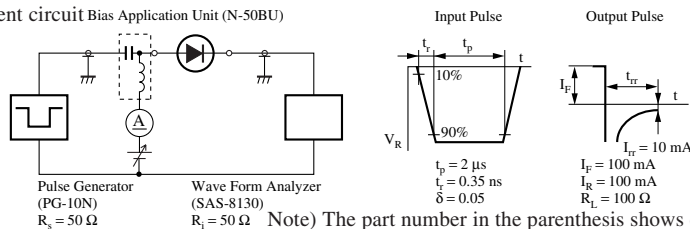
Note) *: Value of each diode in double diodes used.

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

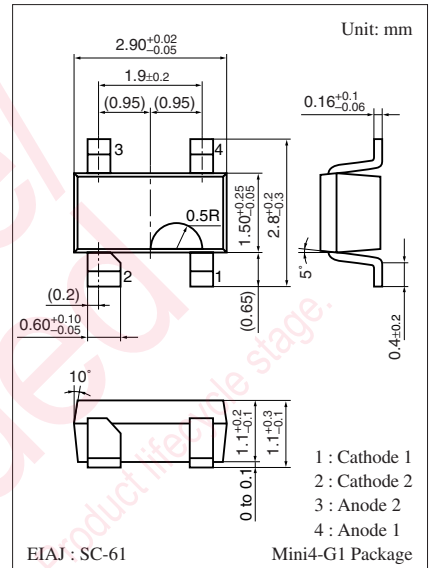
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_{F1}	$I_F = 30$ mA			0.36	V
	V_{F2}	$I_F = 200$ mA			0.55	
Reverse current	I_R	$V_R = 50$ V			200	μA
Terminal capacitance	C_t	$V_R = 0$ V, $f = 1$ MHz		30		pF
Reverse recovery time *	t_{rr}	$I_F = I_R = 100$ mA $I_{tr} = 10$ mA, $R_L = 100 \Omega$		3.0		ns

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 1 GHz.
4. *: t_{rr} measurement circuit Bias Application Unit (N-50BU)

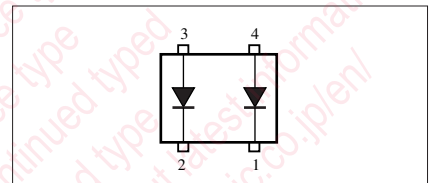


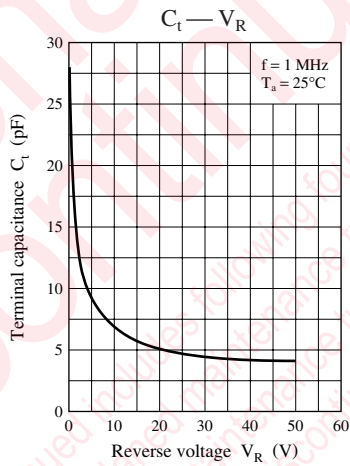
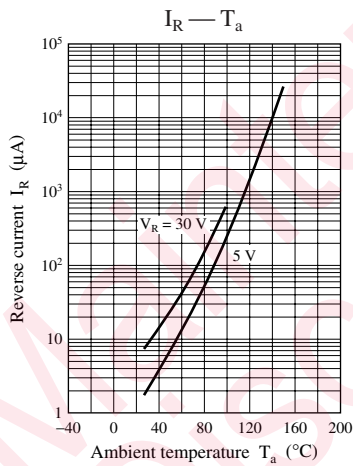
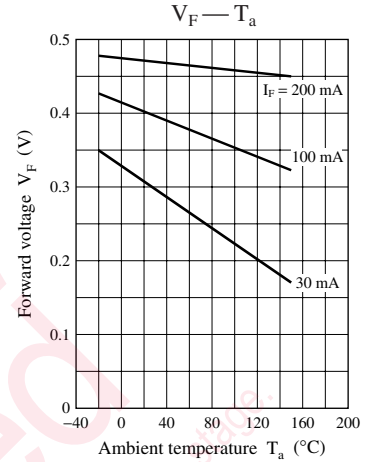
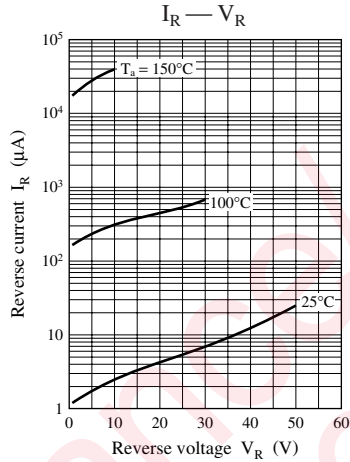
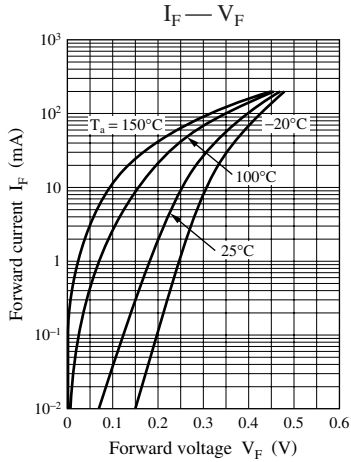
Note) The part number in the parenthesis shows conventional part number.



Marking Symbol: M3M

Internal Connection





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ly to show the main characteristics and application circuit examples
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