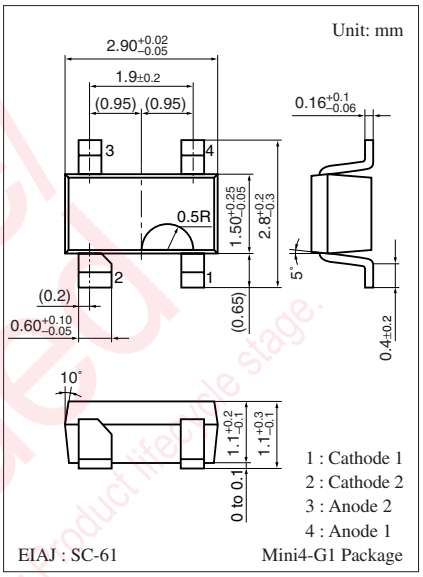
MA4X796 (MA796)

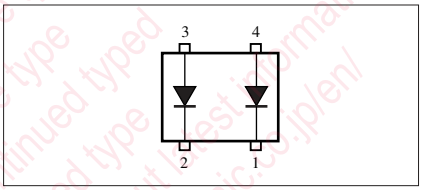
Silicon epitaxial planar type

For super high speed switching
For small current rectification



Marking Symbol: M4B

Internal Connection



■ Features

- Two MA3X787 (MA787) is contained in one package (of a type in the same direction)
- Forward current (Average) $I_{F(AV)}$ = 100 mA rectification 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
- Reverse voltage V_R = 50 V is guaranteed

■ Absolute Maximum Ratings T_a = 25°C

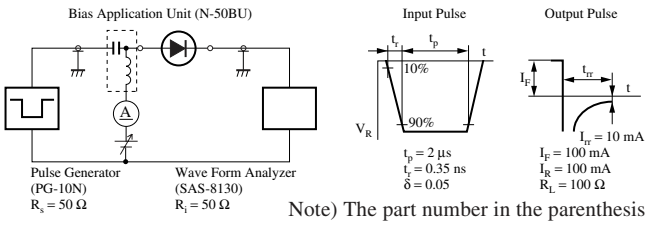
Parameter		Symbol	Rating	Unit
Reverse voltage		V_R	50	V
Repetitive peak reverse voltage		V_{RRM}	50	V
Peak forward current	Single	I_{FM}	300	mA
	Double *1		200	
Forward current (Average)	Single	$I_{F(AV)}$	100	mA
	Double *1		70	
Non-repetitive peak forward surge current *2		I_{FSM}	1	A
Junction temperature		T_j	125	°C
Storage temperature		T_{stg}	−55 to +125	°C

Note) ∗1: Value of each diode in double diodes used.
∗2: The peak-to-peak value in one cycle of 50 Hz sine wave (non-repetitive)

■ Electrical Characteristics T_a = 25°C ± 3°C

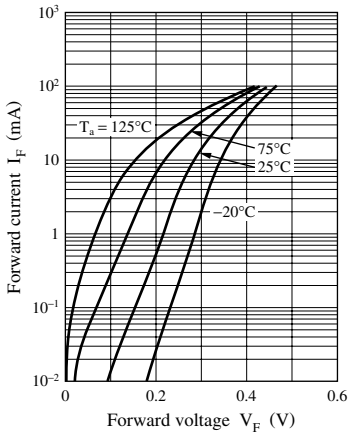
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	I_F = 100 mA			0.55	V
Reverse current	I_R	V_R = 50 V			30	µA
Terminal capacitance	C_t	V_R = 0 V, f = 1 MHz		25		pF
Reverse recovery time *	t_{rr}	I_F = I_R = 100 mA I_{rr} = 10 mA, R_L = 100 Ω		3.0		ns

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 200 MHz.
4. ∗: t_{rr} measurement circuit

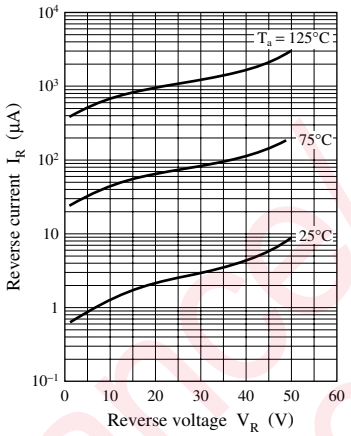


Note) The part number in the parenthesis shows conventional part number.

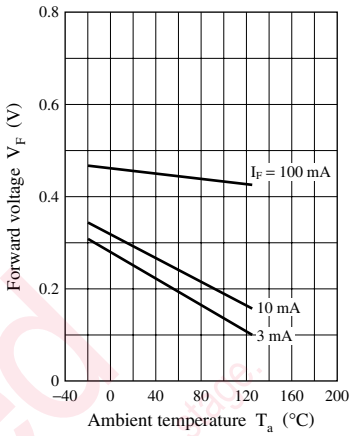
I_F — V_F



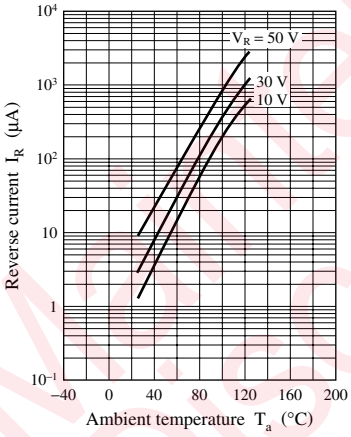
I_R — V_R



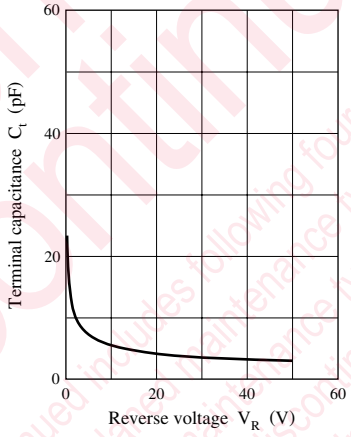
V_F — T_a



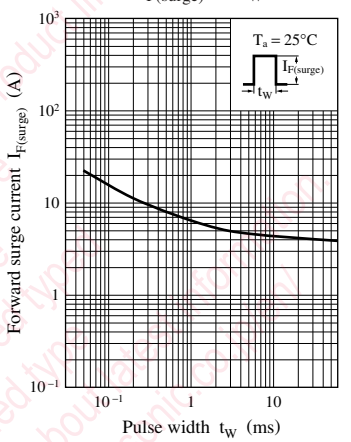
I_R — T_a



C_t — V_R



$I_{F(surge)}$ — t_W



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