

# MA3X787 (MA787)

## Silicon epitaxial planar type

For super high speed switching

For small current rectification

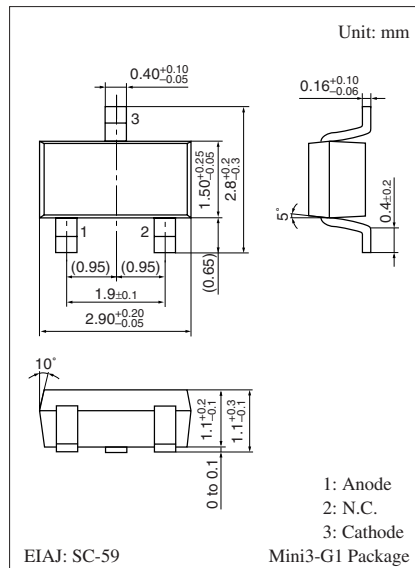
### ■ Features

- 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 $T_a = 25^\circ\text{C}$

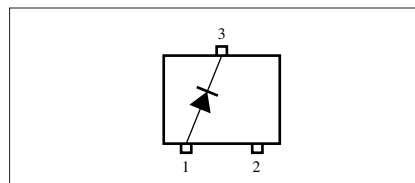
Parameter	Symbol	Rating	Unit
Reverse voltage	$V_R$	50	V
Repetitive peak reverse voltage	$V_{RRM}$	50	V
Peak forward current	$I_{FM}$	300	mA
Forward current (Average)	$I_{F(AV)}$	100	mA
Non-repetitive peak forward surge current *	$I_{FSM}$	1	A
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature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

Note) \*: The peak-to-peak value in one cycle of 50 Hz sine wave (non-repetitive)



Marking Symbol: M3U

Internal Connection



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

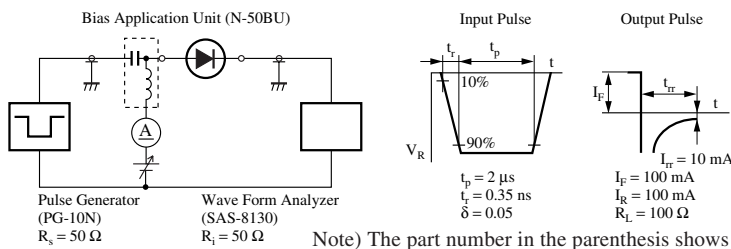
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	$V_F$	$I_F = 100$ mA			0.55	V
Reverse current	$I_R$	$V_R = 50$ V			30	$\mu\text{A}$
Terminal capacitance	$C_t$	$V_R = 0$ V, $f = 1$ MHz		25		pF
Reverse recovery time *	$t_{rr}$	$I_F = I_R = 100$ mA $I_{rr} = 10$ mA, $R_L = 100 \Omega$		3.0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

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

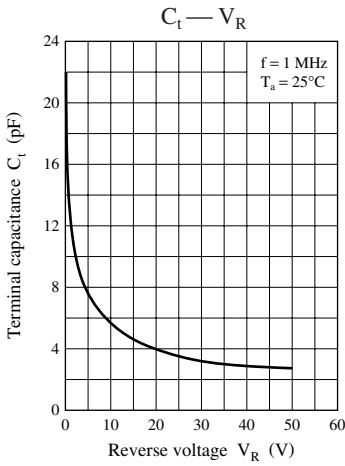
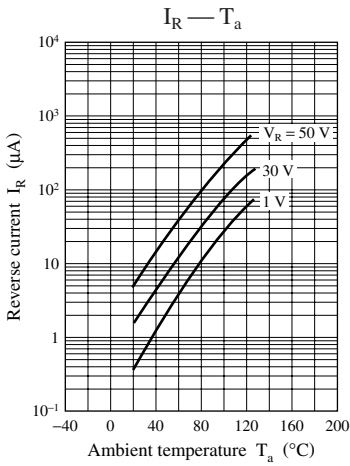
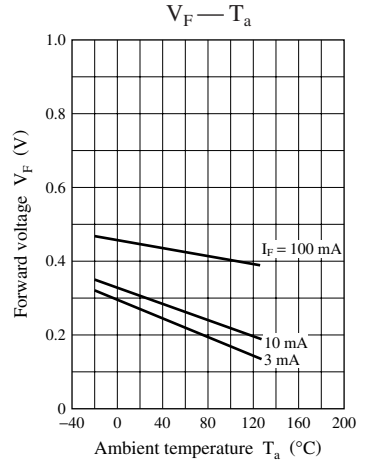
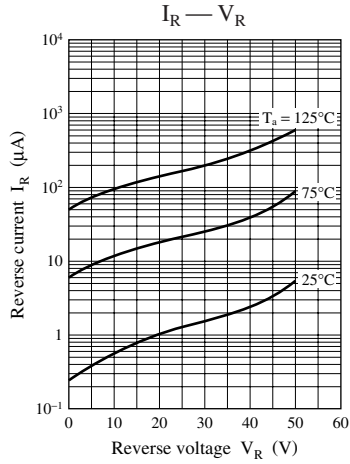
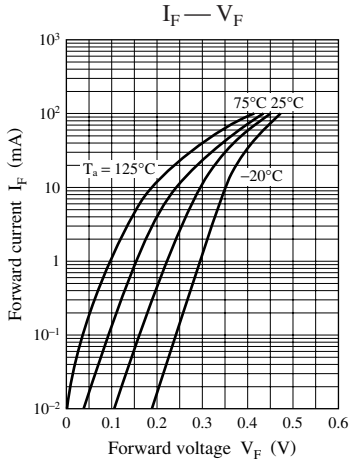
2. This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.

3. Absolute frequency of input and output is 200 MHz.

4. \*:  $t_{rr}$  measurement circuit



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



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