

# MA3X789 (MA789)

## Silicon epitaxial planar type

For super high speed switching  
For small current rectification

### ■ Features

- Forward current (Average)  $I_{F(AV)} = 500$  mA rectification is possible
- Reverse voltage  $V_R = 60$  V is guaranteed

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

Parameter	Symbol	Rating	Unit
Reverse voltage	$V_R$	60	V
Maximum peak reverse voltage	$V_{RM}$	60	V
Forward current (Average)	$I_{F(AV)}$	500	mA
Non-repetitive peak forward surge current *	$I_{FSM}$	2	A
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$

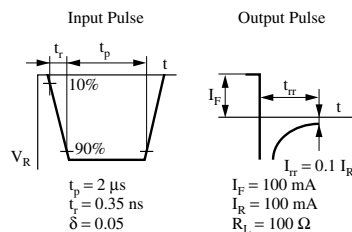
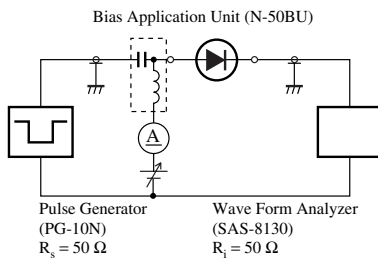
Note) \*: The peak-to-peak value in one cycle of 50 Hz sine wave (non-repetitive)

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

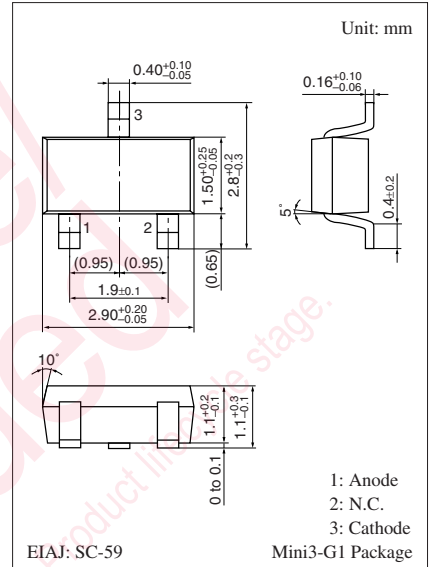
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	$V_F$	$I_F = 500$ mA			0.65	V
Reverse current	$I_R$	$V_R = 50$ V			100	$\mu\text{A}$
Terminal capacitance	$C_t$	$V_R = 0$ V, $f = 1$ MHz		60		pF
Reverse recovery time *	$t_{rr}$	$I_F = I_R = 100$ mA $I_{rr} = 0.1 I_R$ , $R_L = 100 \Omega$		4.5		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 100 MHz.
4. \*:  $t_{rr}$  measurement circuit

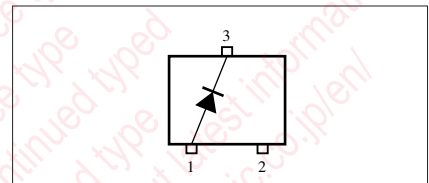


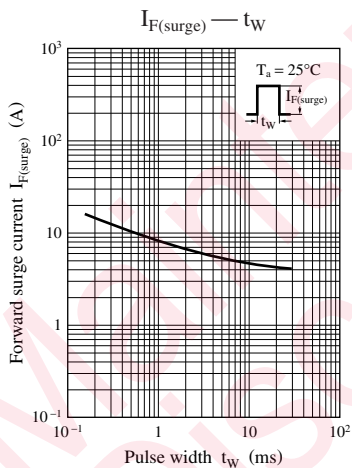
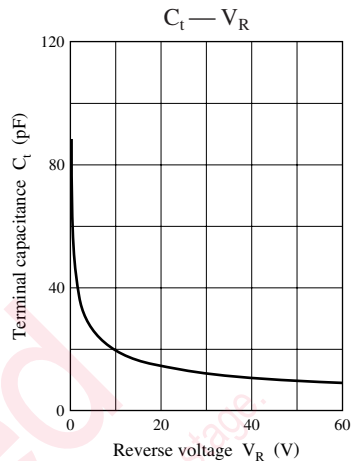
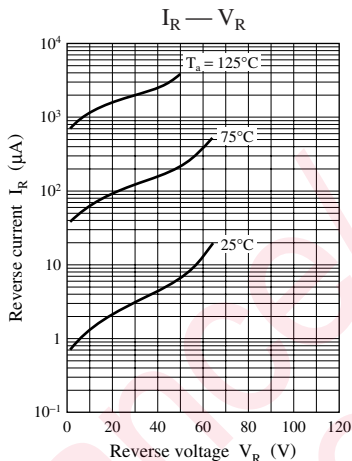
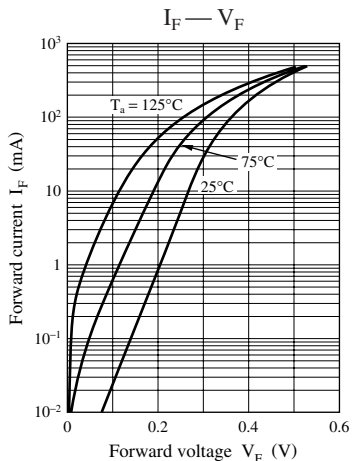
Note) The part number in the parenthesis shows conventional part number.



Marking Symbol: M3W

Internal Connection





Maintenance/Discontinued includes following four Product lifecycle stages:  
 planned maintenance type  
 maintenance type  
 planned discontinued type  
 discontinued type  
 Please visit following URL about latest information.  
<http://www.semicon.panasonic.co.jp/en/>

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