# **MA3X199** (MA199)

### Silicon epitaxial planar type

For high voltage switching circuit

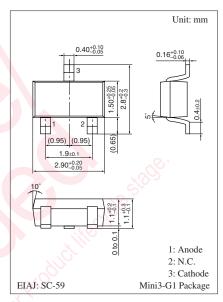
#### ■ Features

- High breakdown voltage:  $V_R = 200 \text{ V}$
- Short reverse recovery time t<sub>rr</sub>
- Automatic mounting is possible

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

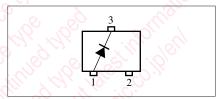
Parameter	Symbol	Rating	Unit	
Reverse voltage	$V_R$	200	V	
Repetitive peak reverse voltage	V <sub>RRM</sub>	250	V	
Forward current (Average)	I <sub>F(AV)</sub>	100	mA	
Repetitive peak forward current	$I_{FRM}$	225	mA	
Non-repetitive peak forward surge current *	I <sub>FSM</sub>	500	mA	
Junction temperature	T <sub>j</sub>	150	°C	
Storage temperature	T <sub>stg</sub>	-55 to +150	°C	

Note) \*: t = 1 s



Marking Symbol: M3A

#### Internal Connection

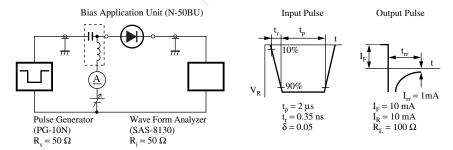


#### ■ Electrical Characteristics $T_a = 25$ °C $\pm 3$ °C

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Forward voltage	$V_{\rm F}$	$I_F = 100 \text{ mA}$	1.60		1.2	V
Reverse current	$I_R$	$V_R = 200 \text{ V}$			1.0	μΑ
Terminal capacitance	C <sub>t</sub>	$V_R = 0 V, f = 1 MHz$			3.0	pF
Reverse recovery time *	t <sub>rr</sub>	$I_F = I_R = 10 \text{ mA}$			60	ns
		$I_{rr} = 1 \text{ mA}, R_L = 100 \Omega$				

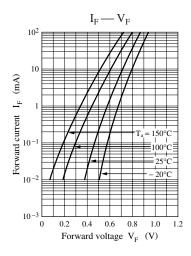
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

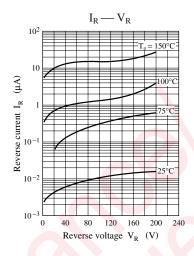
- 2. Absolute frequency of input and output is 20 MHz.
- 3. \*: t<sub>rr</sub> measurement circuit

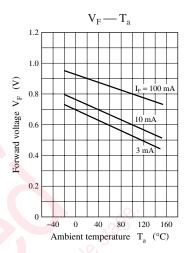


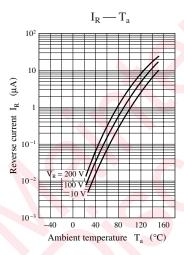
Note) The part number in the parenthesis shows conventional part number.

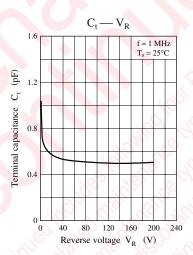
### **Panasonic**











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