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# **MA4X160** (MA160)

### Silicon epitaxial planar type

For high-speed switching circuits

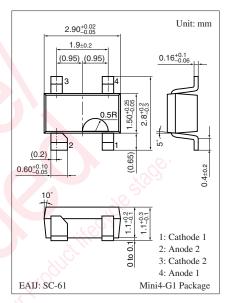
#### ■ Features

- Two isolated elements are contained in one package, allowing high-density mounting
- Centrosymmetrical wiring, allowing to free from the taping direction
- Short reverse recovery time t<sub>rr</sub>
- Small terminal capacitance C<sub>t</sub>

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

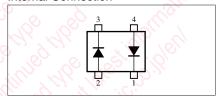
Parameter		Symbol	Rating	Unit
Reverse voltage		$V_R$	40	V
Maximum peak reverse voltage		V <sub>RM</sub>	40	V
Forward current	Single	I <sub>F(AV)</sub>	100	mA
(Average)	Series		75	
Repetitive peak	Single	$I_{FRM}$	225	mA
forward current	Series		170	
Non-repetitive peak	Single	I <sub>FSM</sub>	500	mA
forward surge current *	Series		375	collo.
Junction temperature		T <sub>j</sub>	150	S°C (
Storage temperature		T <sub>stg</sub>	-55 to +150	o.c

Note) \*: t = 1 s



Marking Symbol: M1D

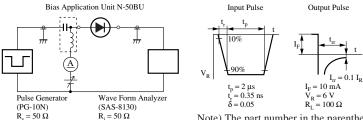
#### Internal Connection



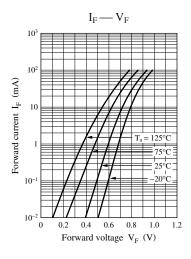
#### ■ Electrical Characteristics $T_a = 25$ °C $\pm 3$ °C

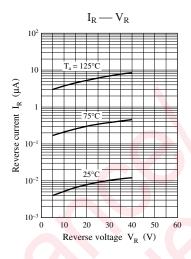
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Forward voltage	$V_{\rm F}$	I <sub>F</sub> = 100 mA		0.95	1.20	V
Reverse voltage	$V_R$	$I_R = 100 \mu A$	40			V
Reverse current	$I_R$	V <sub>R</sub> = 35 V			0.1	μΑ
Terminal capacitance	$C_{t}$	$V_R = 0 \text{ V, f} = 1 \text{ MHz}$		0.9	2.0	pF
Reverse recovery time *	t <sub>rr</sub>	$I_F = 10 \text{ mA}, V_R = 6 \text{ V}$			3	ns
		$I_{rr} = 0.1 I_R$ , $R_L = 100 \Omega$				

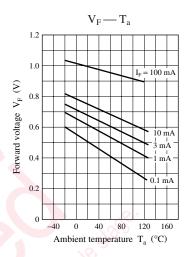
- Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring method for diodes.
  - 2. Absolute frequency of input and output is 100 MHz.
  - 3. \*: t<sub>rr</sub> measurement circuit

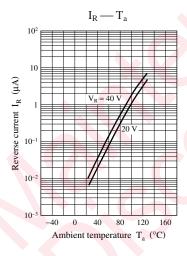


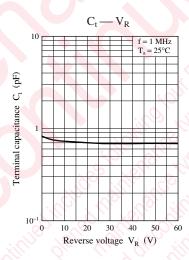
Note) The part number in the parenthesis shows conventional part number.

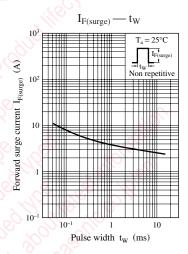












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