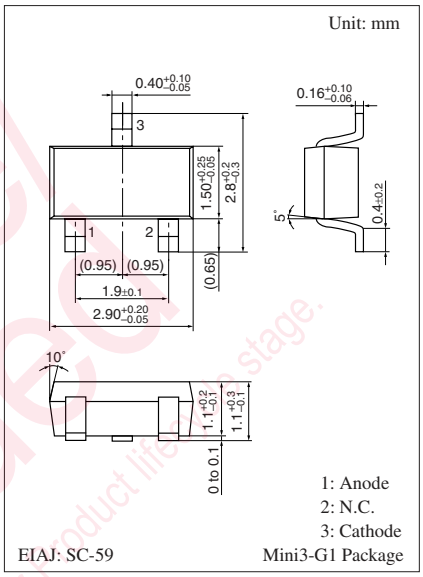
MA3X199 (MA199)

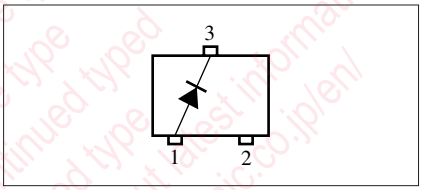
Silicon epitaxial planar type

For high voltage switching circuit



Marking Symbol: M3A

Internal Connection



■ Features

- High breakdown voltage: V_R = 200 V
- Short reverse recovery time t_{rr}
- Automatic mounting is possible

■ Absolute Maximum Ratings T_a = 25°C

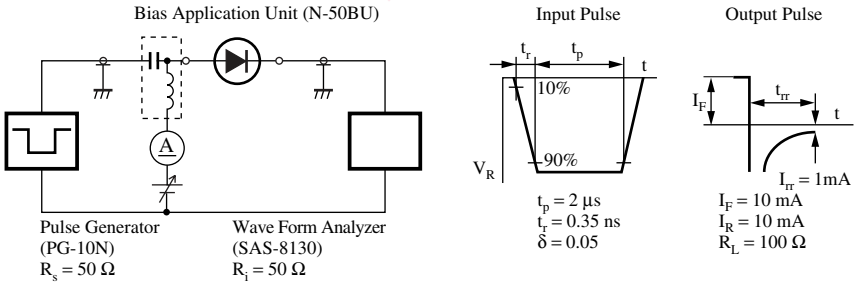
Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	200	V
Repetitive peak reverse voltage	V_{RRM}	250	V
Forward current (Average)	$I_{F(AV)}$	100	mA
Repetitive peak forward current	I_{FRM}	225	mA
Non-repetitive peak forward surge current *	I_{FSM}	500	mA
Junction temperature	T_j	150	°C
Storage temperature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

Note) *: t = 1 s

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

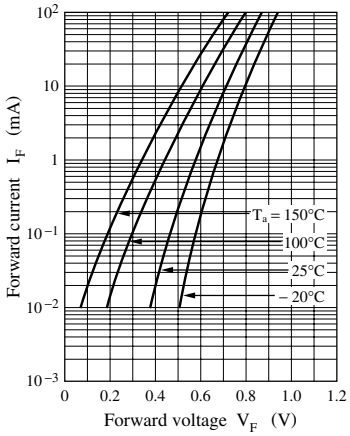
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	I_F = 100 mA			1.2	V
Reverse current	I_R	V_R = 200 V			1.0	μA
Terminal capacitance	C_t	V_R = 0 V, f = 1 MHz			3.0	pF
Reverse recovery time *	t_{rr}	I_F = I_R = 10 mA I_{rr} = 1 mA, R_L = 100 Ω			60	ns

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_{rr} measurement circuit

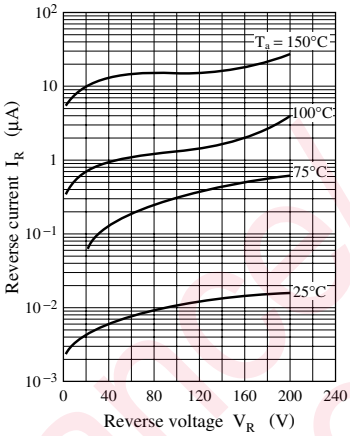


Note) The part number in the parenthesis shows conventional part number.

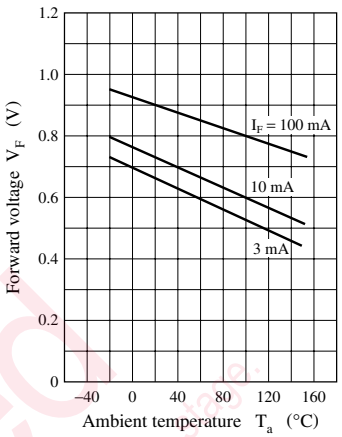
I_F — V_F



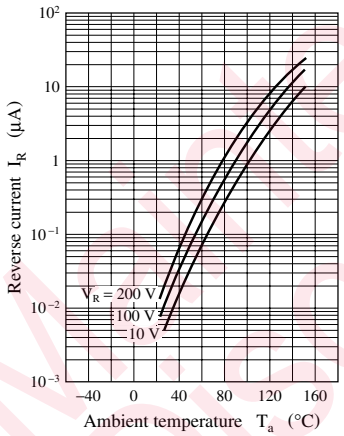
I_R — V_R



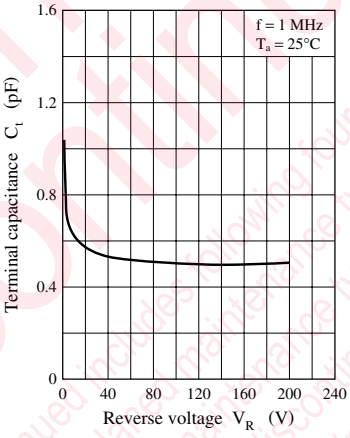
V_F — T_a



I_R — T_a



C_t — V_R



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