MA22D21

Silicon epitaxial planar type

For high frequency rectification

■ Features

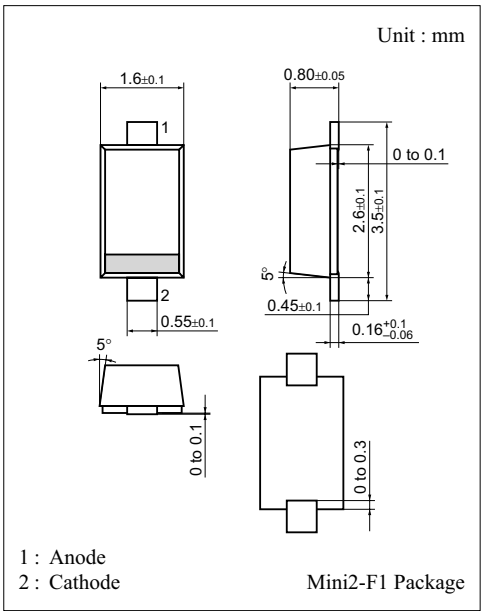
- $I_{F(AV)}$ = 1 A rectification is possible
- Low forward voltag V_F : V_F < 0.38 V (at I_F = 1 A)
- High non-repetitive peak forward surge current

■ Absolute Maximum Ratings T_a = 25°C

Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	15	V
Repetitive peak reverse voltage	V_{RRM}	15	V
Forward current (Average) *1	$I_{F(AV)}$	1.0	A
Non-repetitive peak forward surge current *2	I_{FSM}	20	A
Junction temperature	T_j	125	°C
Storage time	T_{stg}	–55 to +125	°C

Note) ∗1: Mounted on an alumina PC board

∗2: The peak-to-peak value in one cycle of 50 Hz sine wave (non-repetitive)



Marking Symbol: 3X

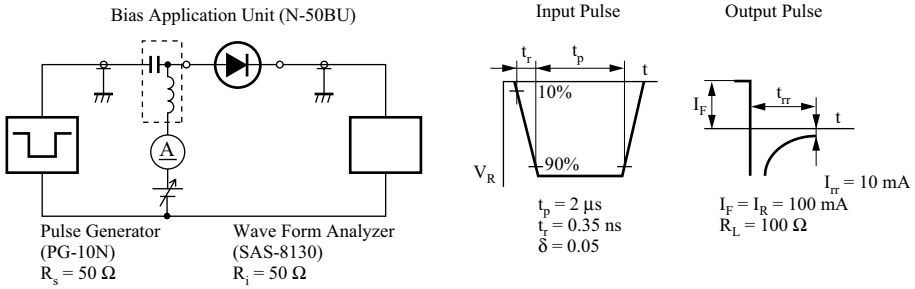
■ Electrical Characteristics T_a = 25°C±3°C

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	I_F = 1 A		0.31	0.38	V
Reverse current	I_R	V_R = 6 V			1.5	mA
Terminal capacitance	C_t	V_R = 0 V, f = 1 MHz		180		pF
Reverse recovery time *	t_{rr}	I_F = I_R = 100 mA, I_{rr} = 10 mA, R_L = 100 Ω		12		ns

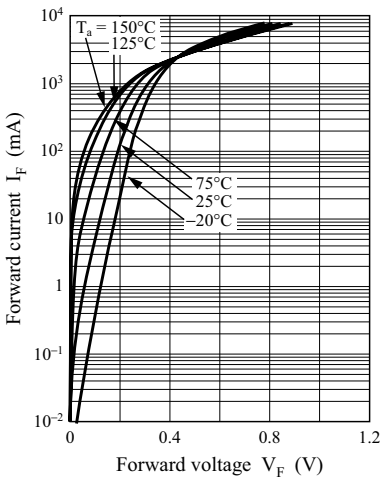
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

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.

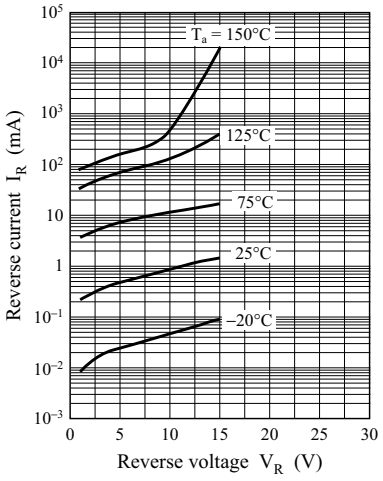
3. ∗: t_{rr} measurement circuit



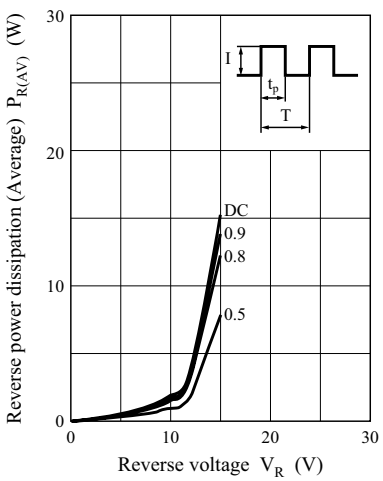
I_F — V_F



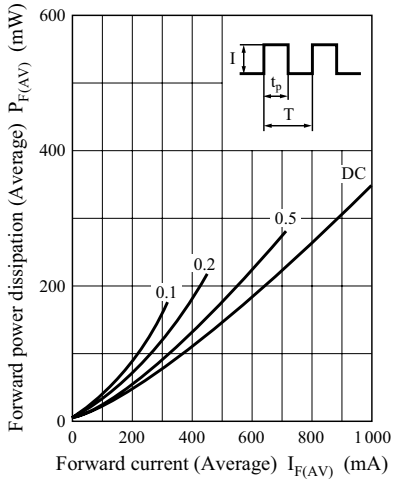
I_R — V_R



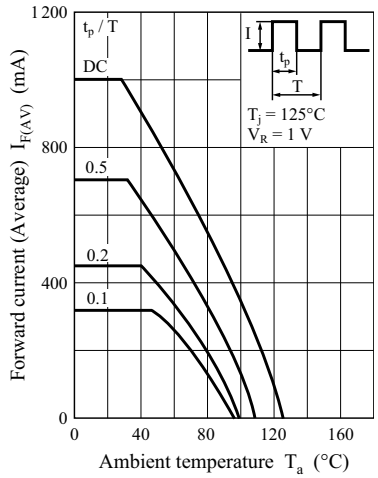
$P_{R(AV)}$ — V_R



$P_{F(AV)}$ — $I_{F(AV)}$



$I_{F(AV)}$ — T_a



This product complies with the RoHS Directive (EU 2002/95/EC).

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(2) The technical information described in this material is limited to showing representative characteristics and applied circuits examples of the products. It neither warrants non-infringement of intellectual property right or any other rights owned by our company or a third party, nor grants any license.

(3) We are not liable for the infringement of rights owned by a third party arising out of the use of the technical information as described in this material.

(4) The products described in this material are intended to be used for standard applications or general electronic equipment (such as office equipment, communications equipment, measuring instruments and household appliances).
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Even when the products are used within the guaranteed values, take into the consideration of incidence of break down and failure mode, possible to occur to semiconductor products. Measures on the systems such as redundant design, arresting the spread of fire or preventing glitch are recommended in order to prevent physical injury, fire, social damages, for example, by using the products.

(7) When using products for which damp-proof packing is required, observe the conditions (including shelf life and amount of time let standing of unsealed items) agreed upon when specification sheets are individually exchanged.