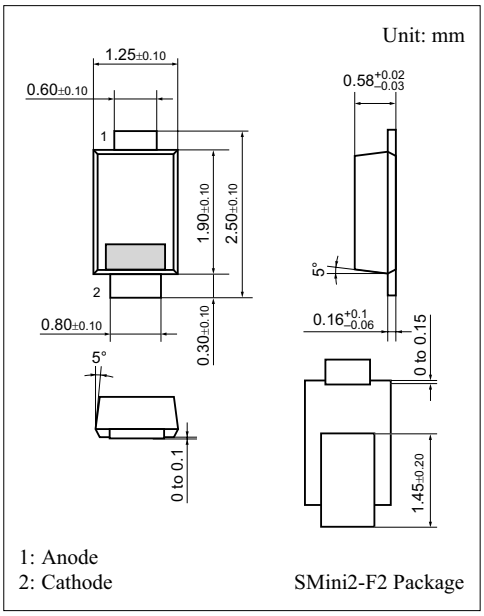
MA21D38

Silicon epitaxial planar type

For high frequency rectification



Marking Symbol: 3U

■ Features

- $I_{F(AV)}$ = 1 A rectification is possible
- Low forward voltag V_F
- High non-repetitive peak forward surge voltage

■ Absolute Maximum Ratings T_a = 25°C

Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	30	V
Maximum peak reverse voltage	V_{RM}	30	V
Forward current (Average)	$I_{F(AV)}$	1.0	A
Non-repetitive peak forward surge current *	I_{FSM}	20	A
Junction temperature	T_j	125	°C
Storage time	T_{stg}	–55 to +125	°C

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

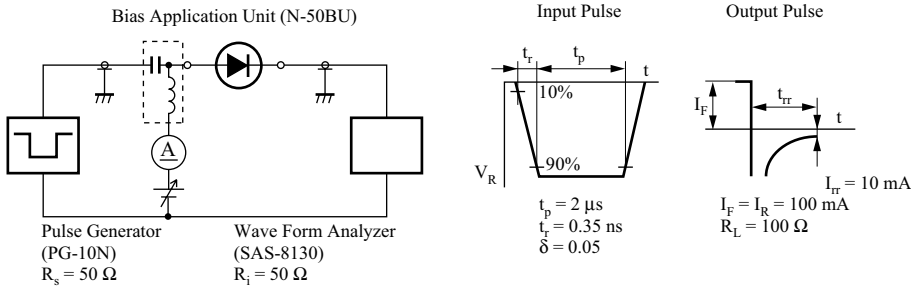
■ Electrical Characteristics T_a = 25°C±3°C

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_{F1}	I_F = 0.5 A		0.34	0.38	V
	V_{F2}	I_F = 0.7 A		0.36	0.40	
	V_{F3}	I_F = 1.0 A		0.38	0.42	
Reverse current	I_R	V_R = 30 V			100	μA
Terminal capacitance	C_t	V_R = 10 V, f = 1 MHz		40		pF
Reverse recovery time *	t_{rr}	$I_F = I_R$ = 100 mA, I_{rr} = 10 mA, R_L = 100 Ω		13		ns

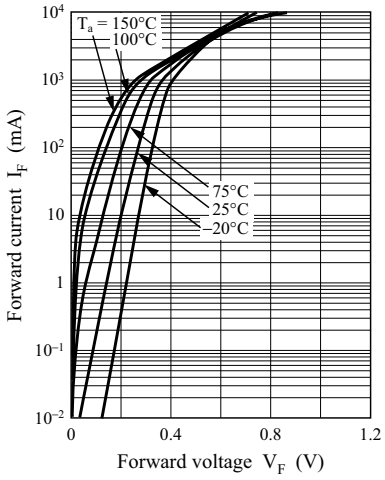
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

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.

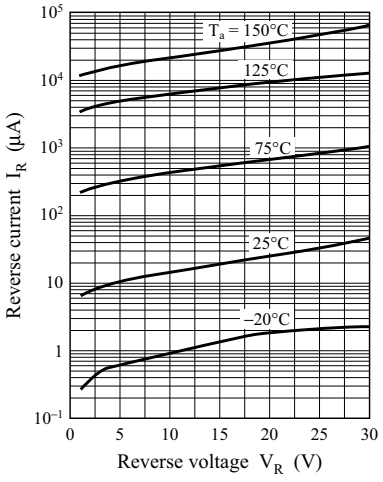
3. *: t_{rr} measurement circuit



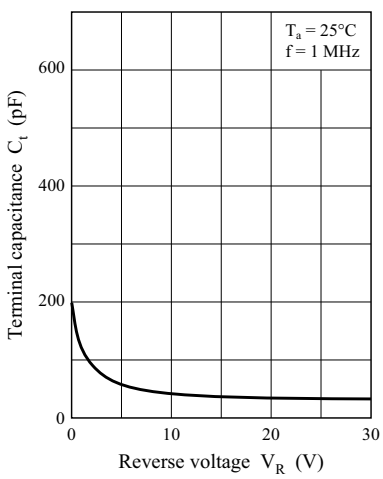
I_F — V_F



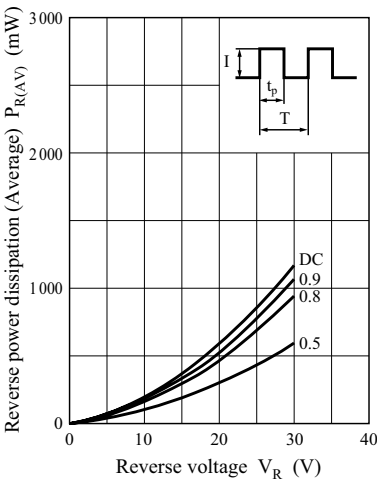
I_R — V_R



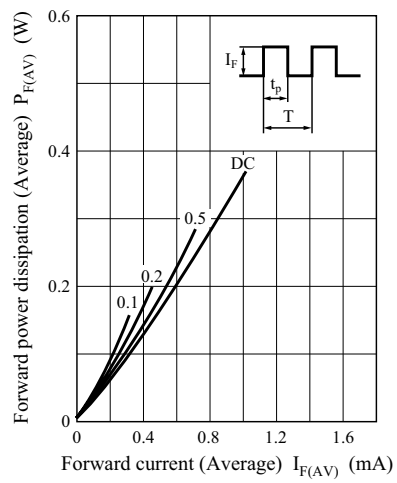
C_t — V_R



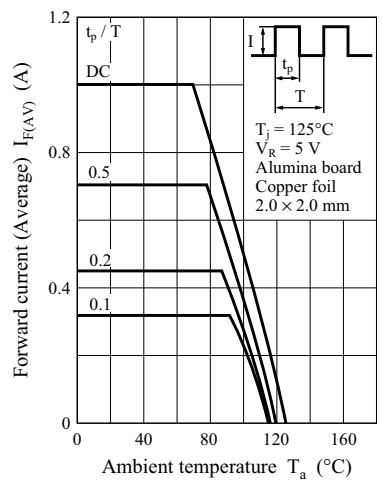
$P_{R(AV)}$ — V_R



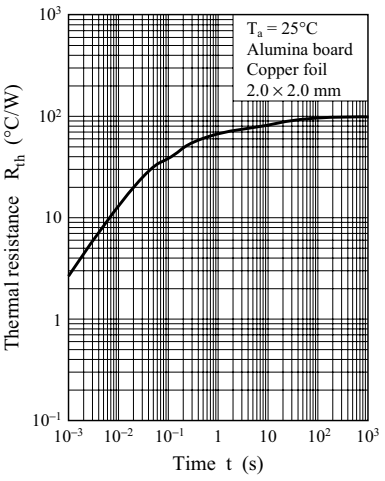
$P_{F(AV)}$ — $I_{F(AV)}$



$I_{F(AV)}$ — T_a



R_{th} — t



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