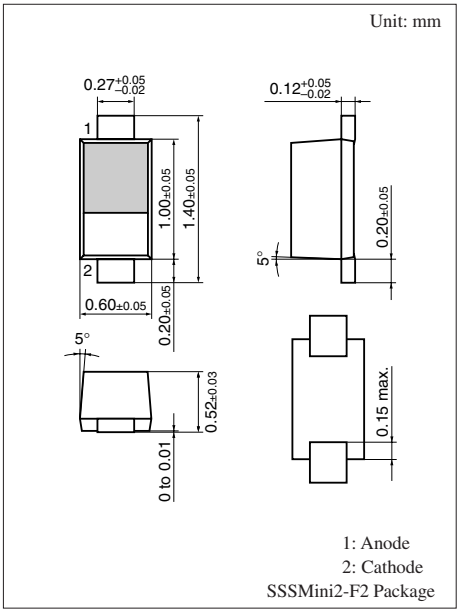
MA27D30

Silicon epitaxial planar type

For super high speed switching



Marking Symbol: 8N

■ Features

- Small reverse current: I_R < 2 µA (at V_R = 30 V)
- Optimum for high frequency rectification because of its short reverse recovery time t_{rr} .

■ Absolute Maximum Ratings T_a = 25°C

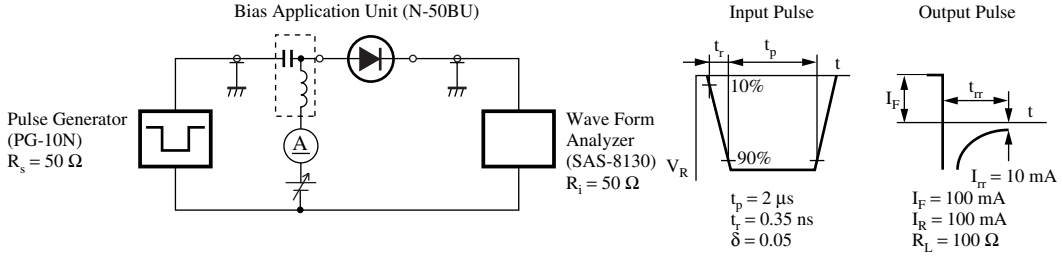
Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	30	V
Repetitive peak reverse voltage	V_{RRM}	30	V
Forward current (Average)	$I_{F(AV)}$	100	mA
Peak forward current	I_{FM}	200	mA
Non-repetitive peak forward surge current *	I_{FSM}	1	A
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	−55 to +125	°C

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

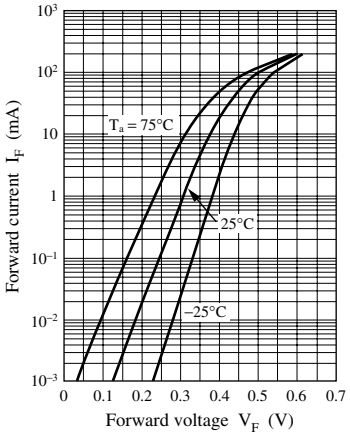
■ Electrical Characteristics T_a = 25°C ± 3°C

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_{F1}	I_F = 10 mA		0.38	0.44	V
	V_{F2}	I_F = 100 mA		0.51	0.58	V
Reverse current	I_{R1}	V_R = 10 V			0.3	µA
	I_{R2}	V_R = 30 V			2	µA
Terminal capacitance	C_t	V_R = 0 V, f = 1 MHz		9		pF
Reverse recovery time *	t_{rr}	I_F = I_R = 100 mA I_{rr} = 10 mA, R_L = 100 Ω		1		ns

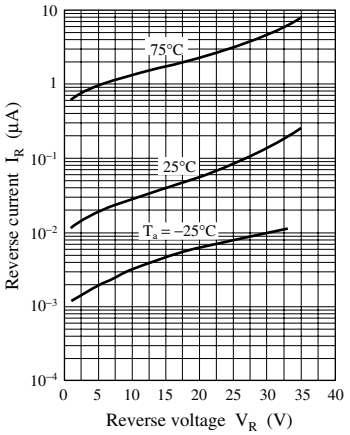
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.
2. This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.
3. Absolute frequency of input and output is 250 MHz
4. *: t_{rr} measurement circuit



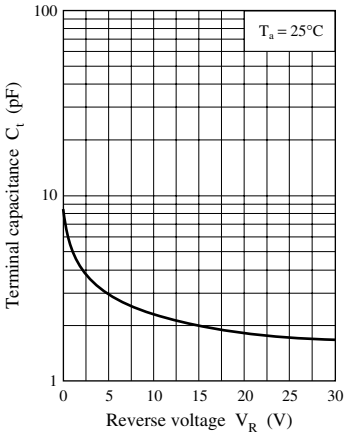
I_F — V_F



I_R — V_R



C_t — V_R



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