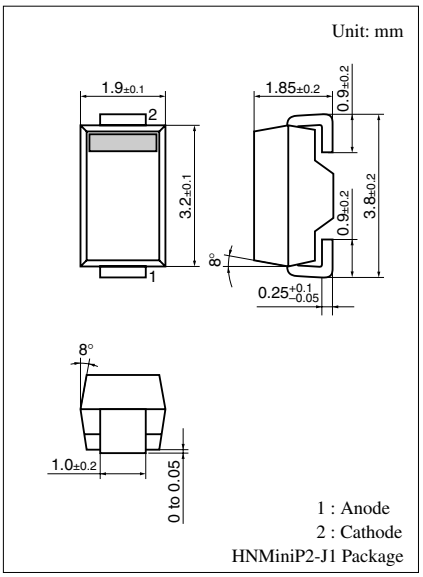
MA2HD09

Silicon epitaxial planar type

For high frequency rectification



Marking Symbol: PR

■ Features

- $I_{F(AV)}$ = 1 A rectification is possible
- Low forward voltage: V_F < 0.40 V (at I_F = 1 A)
- Half New Mini-power package

■ Absolute Maximum Ratings T_a = 25°C

Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V_R	30	V
Repetitive peak reverse-voltage	V_{RRM}	30	V
Average forward current	$I_{F(AV)}$	1	A
Non-repetitive peak forward-surge-current *	I_{FSM}	25	A
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	−40 to +125	°C

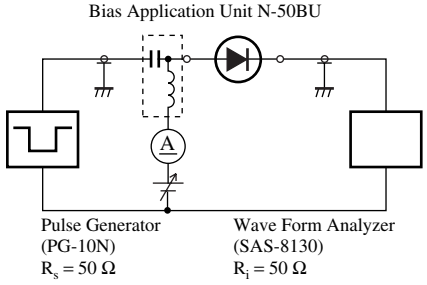
Note) ∗: The peak-to-peak value in one cycle of 50 Hz sine wave (non-repetitive)

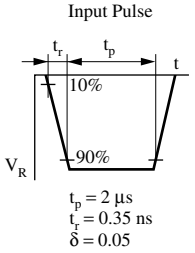
■ Electrical Characteristics T_a = 25°C ± 3°C

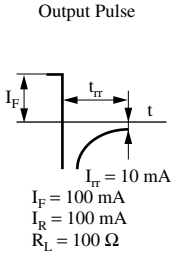
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	I_R	V_R = 30 V			3	mA
Forward voltage (DC)	V_F	I_F = 1 A			0.40	V
Terminal capacitance	C_t	V_R = 10 V, f = 1 MHz		50		pF
Reverse recovery time *	t_{rr}	I_F = I_R = 100 mA I_{rr} = 10 mA, R_L = 100 Ω		15		ns

Note) 1. Rated input/output frequency: 20 MHz

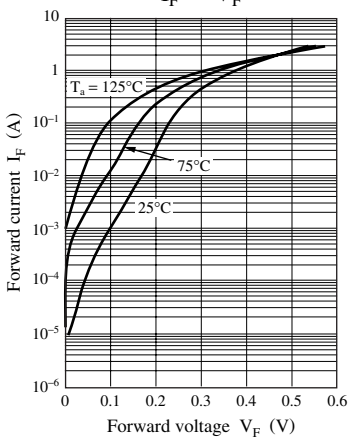
2. ∗: t_{rr} measuring instrument



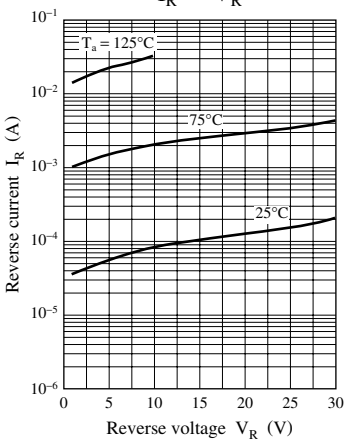




I_F — V_F


10
1
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
Forward current I_F (A)
T_a = 125°C
75°C
25°C
0
0.1
0.2
0.3
0.4
0.5
0.6
Forward voltage V_F (V)

I_R — V_R


10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
Reverse current I_R (A)
T_a = 125°C
75°C
25°C
0
5
10
15
20
25
30
Reverse voltage V_R (V)

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