

TOSHIBA Diode Silicon Epitaxial Planar Type

HN2D02FU

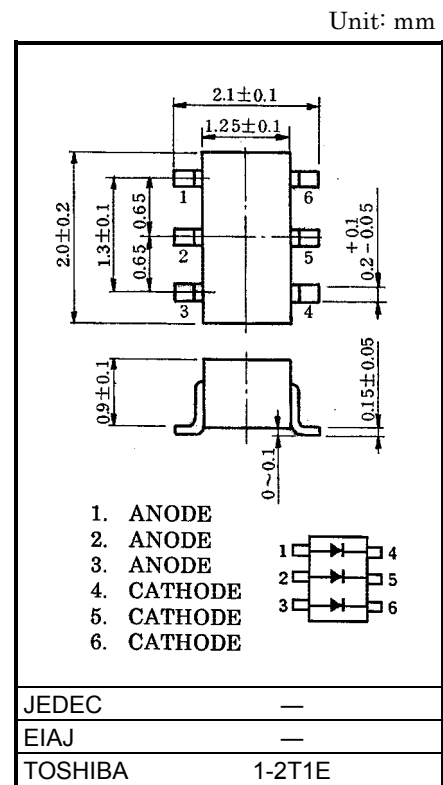
Ultra High Speed Switching Application

- HN2D02FU is composed of 3 independent diodes.
- Low forward voltage : $V_F(3) = 0.98V$ (typ.)
- Fast reverse recovery time: $t_{rr} = 1.6ns$ (typ.)
- Small total capacitance : $C_T = 0.5pF$ (typ.)

Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Rating	Unit
Maximum (peak) reverse Voltage	V_{RM}	85	V
Reverse voltage	V_R	80	V
Maximum (peak) forward current	I_{FM}	240 *	mA
Average forward current	I_O	80 *	mA
Surge current (10ms)	I_{FSM}	1 *	A
Power dissipation	P	300	mW
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	-55~125	°C

* : This is maximum rating of single diode (Q1 or Q2 or Q3).
 In the case of using 2 ro 3 diodes, the maximum ratings per diodes is 75 % of the single diode one.



Electrical Characteristics (Q1, Q2, Q3 Common, Ta = 25°C)

Characteristic	Symbol	Test Circuit	Test Condition	Min	Typ.	Max	Unit
Forward voltage	$V_F(1)$	—	$I_F = 1mA$	—	0.62	—	V
	$V_F(2)$	—	$I_F = 10mA$	—	0.75	—	
	$V_F(3)$	—	$I_F = 100mA$	—	0.98	1.20	
Reverse current	$I_R(1)$	—	$V_R = 30V$	—	—	0.1	μA
	$I_R(2)$	—	$V_R = 80V$	—	—	0.5	
Total capacitance	C_T	—	$V_R = 0, f = 1MHz$	—	0.5	3.0	pF
Reverse recovery time	t_{rr}	—	$I_F = 10mA$ (Fig.1)	—	1.6	4.0	ns

Marking

Pin Assignment (Top View)

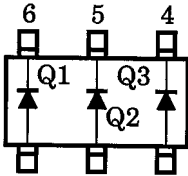
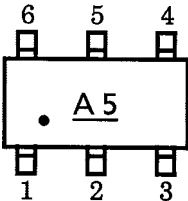
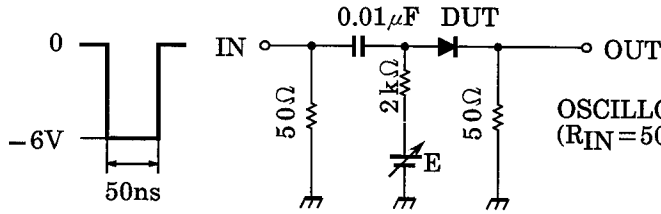


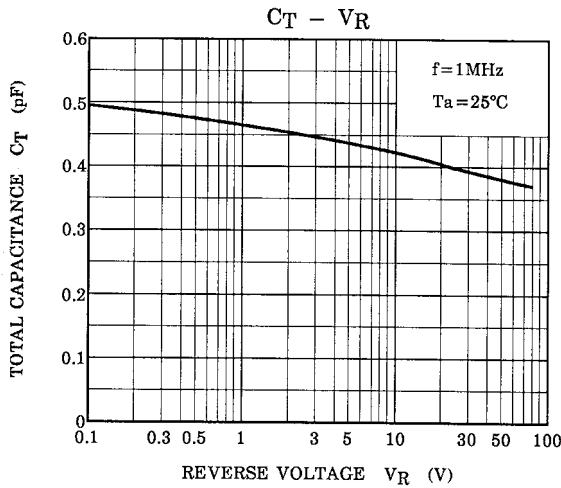
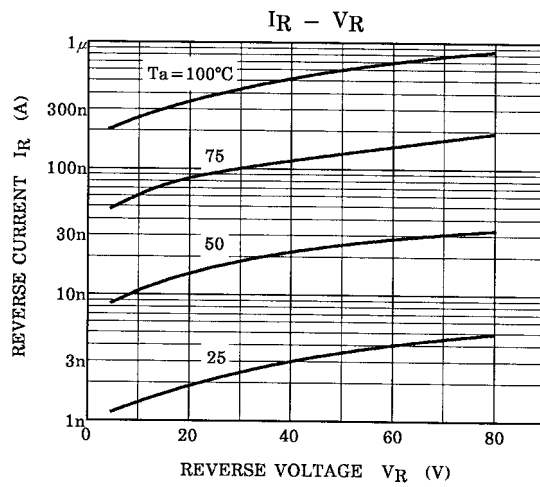
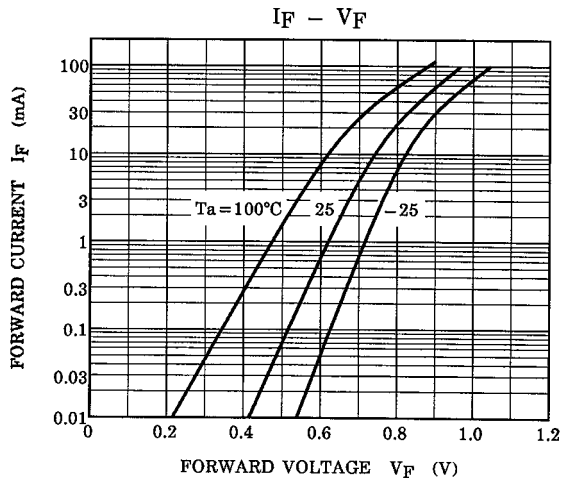
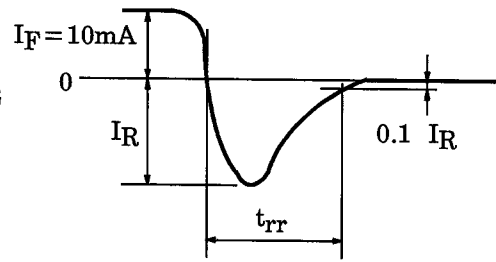
Fig.1 Reverse Recovery Time (t_{rr}) Test Circuit

INPUT WAVEFORM



PULSE GENERATOR
($R_{OUT} = 50\Omega$)

OUTPUT WAVEFORM



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