

TOSHIBA DIODE SILICON EPITAXIAL PLANAR TYPE

HN2D01F

ULTRA HIGH SPEED SWITCHING APPLICATION.

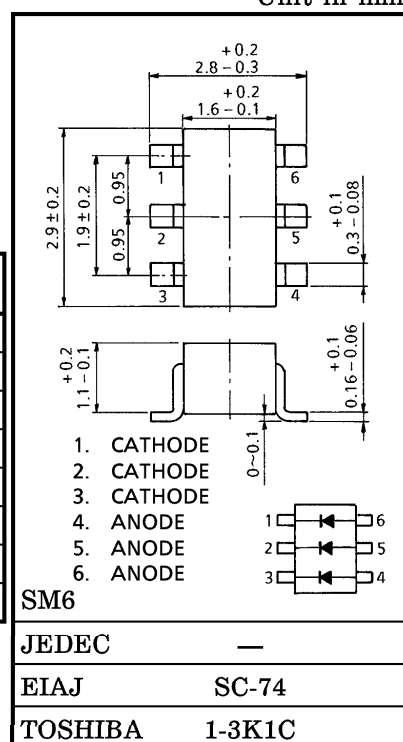
Unit in mm

- HN2D01F 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 ($T_a = 25^\circ C$)

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	$^\circ C$
Storage Temperature Range	T_{stg}	-55~125	$^\circ C$

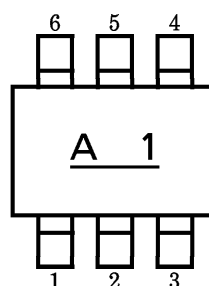
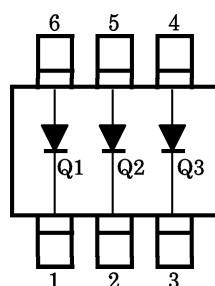
(*) This is the Maximum Rating of single diode (Q1 or Q2 or Q3). In the case of using 2 or 3 diodes, the Maximum Ratings per diode is 75% of the single diode one.

ELECTRICAL CHARACTERISTICS (Q1, Q2, Q3 COMMON $T_a = 25^\circ C$)

CHARACTERISTIC	SYMBOL	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

PIN ASSIGNMENT (TOP VIEW)

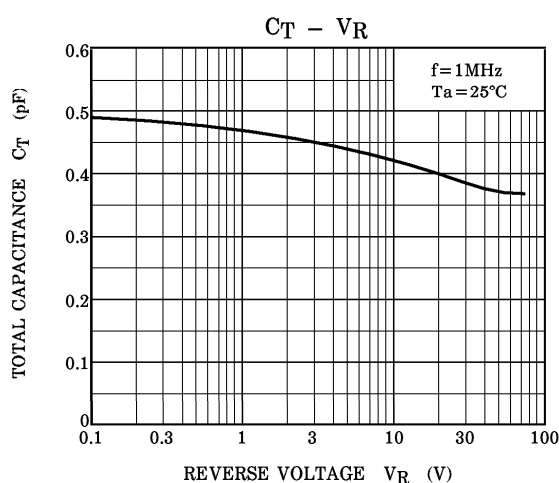
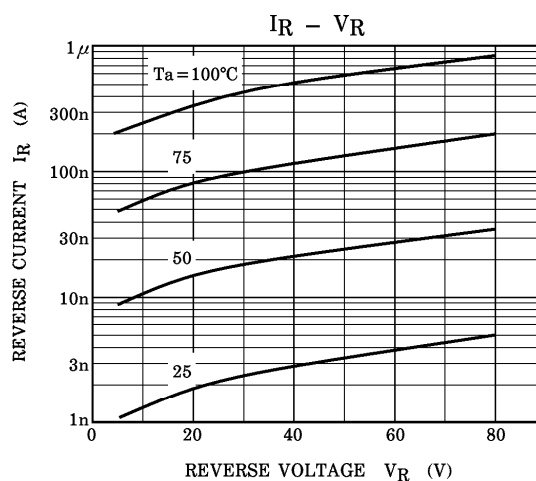
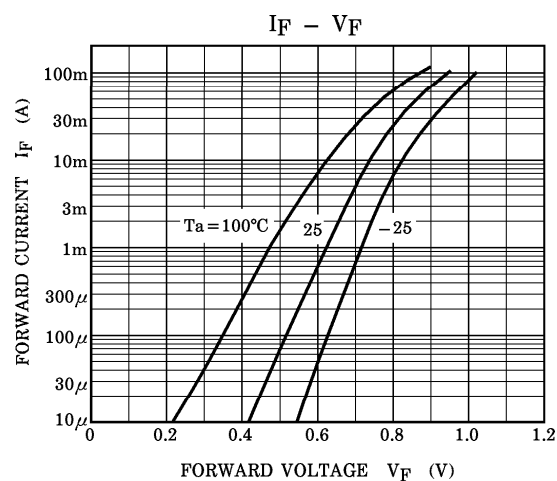
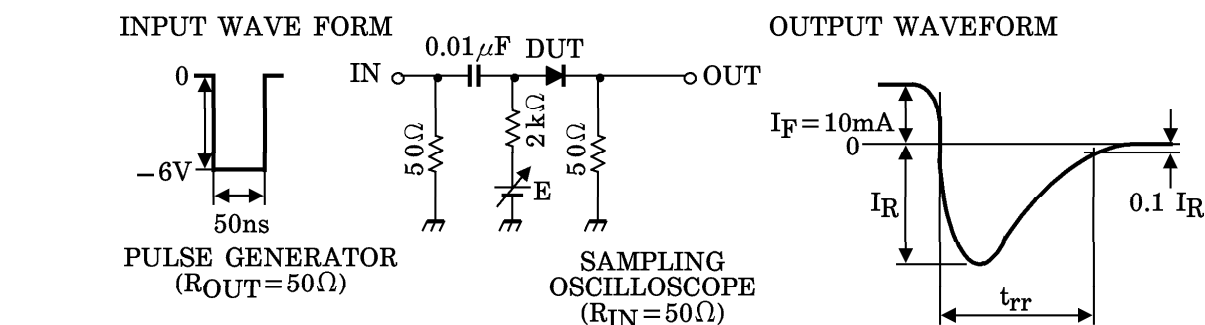
MARKING



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Fig.1 : REVERSE RECOVERY TIME (t_{rr}) TEST CIRCUIT



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