

TOSHIBA DIODE SILICON EPITAXIAL PLANAR TYPE

HN2D01F

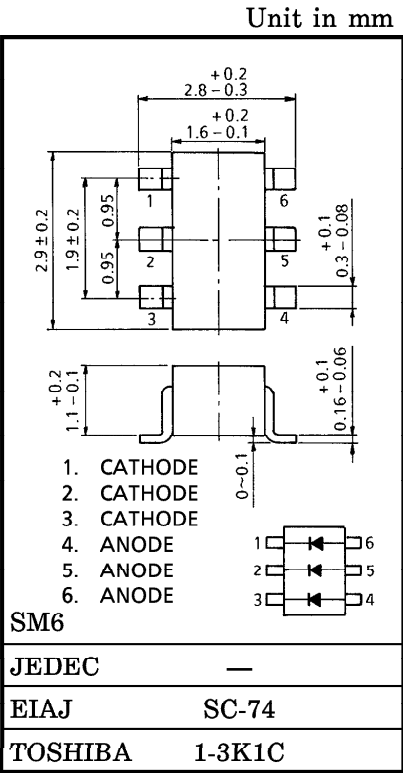
ULTRA HIGH SPEED SWITCHING APPLICATION.

- 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 (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 Range	$T_{stg}$	-55~125	°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.



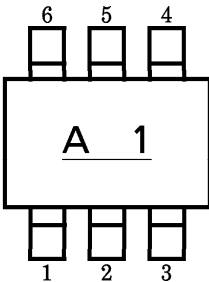
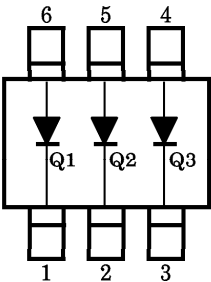
ELECTRICAL CHARACTERISTICS (Q1, Q2, Q3 COMMON Ta = 25°C)

Weight : 0.015g

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	$\mu A$
	$I_R(2)$	$V_R=80V$	—	—	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

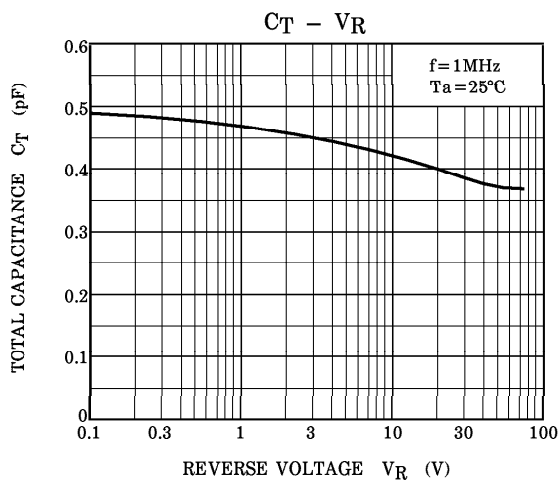
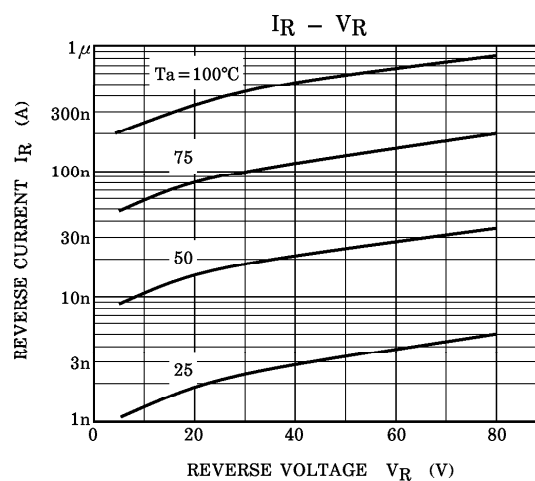
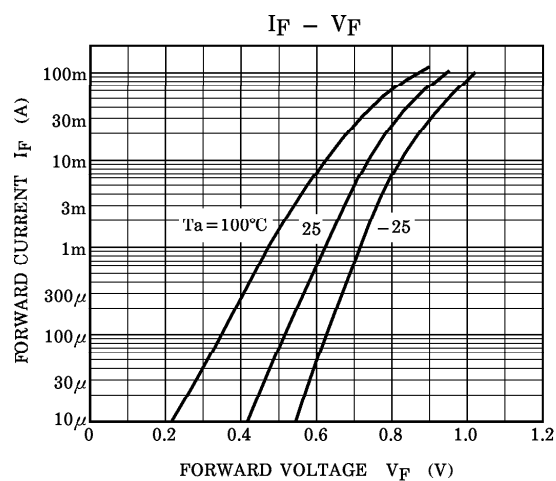
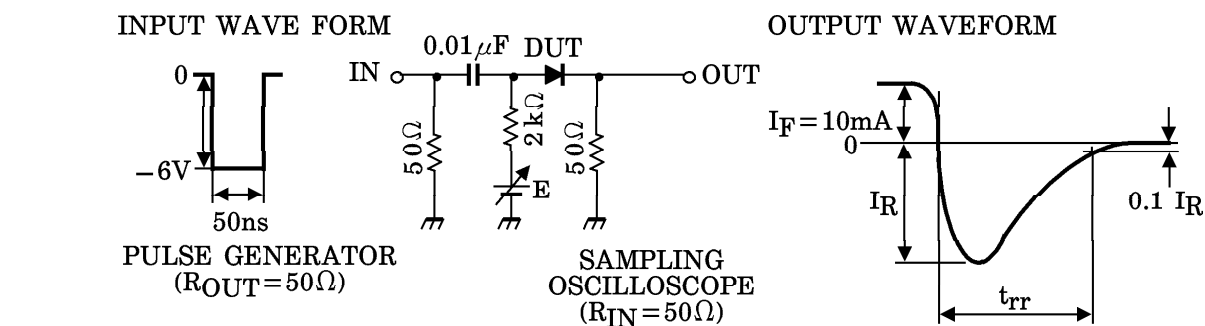
PIN ASSIGNMENT (TOP VIEW)

MARKING



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

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