

ULTRA HIGH SPEED SWITCHING APPLICATION.

- HN1D02FU is composed of 2 unit of cathode common.
- Low Forward Voltage :  $V_F(3) = 0.90V$  (Typ.)
- Fast Reverse Recovery Time :  $t_{rr} = 1.6ns$  (Typ.)
- Small Total Capacitance :  $C_T = 0.9pF$  (Typ.)

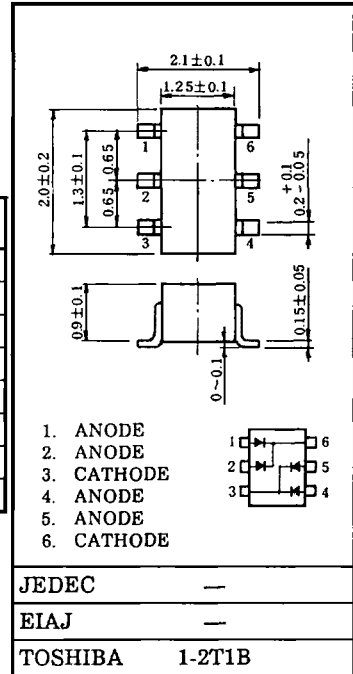
MAXIMUM RATINGS ( $T_a = 25^\circ C$ )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Maximum (Peak) Reverse Voltage	$V_{RM}$	85	V
Reverse Voltage	$V_R$	80	V
Maximum (Peak) Forward Current	$I_{FM}$	300*	mA
Average Forward Current	$I_O$	100*	mA
Surge Current (10ms)	$I_{FSM}$	2*	A
Power Dissipation	P	200	mW
Junction Temperature	$T_j$	125	$^\circ C$
Storage Temperature	$T_{stg}$	-55~125	$^\circ C$

\* : This is Maximum Ratings of single diode (Q1 or Q2 or Q3 or Q4).

In the case of using Unit 1 and Unit 2 independently or simultaneously, the Maximum Ratings per diode is 75% of the single diode one.

Unit in mm

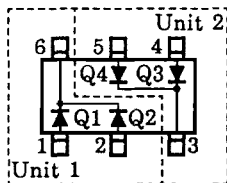


ELECTRICAL CHARACTERISTICS (Q1, Q2, Q3, Q4 COMMON,  $T_a = 25^\circ C$ )

Weight : 6.8mg

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	$V_F(1)$	$I_F = 1mA$	—	0.60	—	V
	$V_F(2)$	$I_F = 10mA$	—	0.72	—	
	$V_F(3)$	$I_F = 100mA$	—	0.90	1.20	
Reverse Current	$I_R(1)$	$V_R = 30V$	—	—	0.1	$\mu A$
	$I_R(2)$	$V_R = 80V$	—	—	0.5	
Total Capacitance	$C_T$	$V_R = 0, f = 1MHz$	—	0.9	3.0	pF
Reverse Recovery Time	$t_{rr}$	$I_F = 10mA$ (Fig. 1)	—	1.6	4.0	ns

PIN ASSIGNMENT (TOP VIEW)



Marking

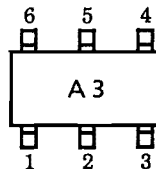
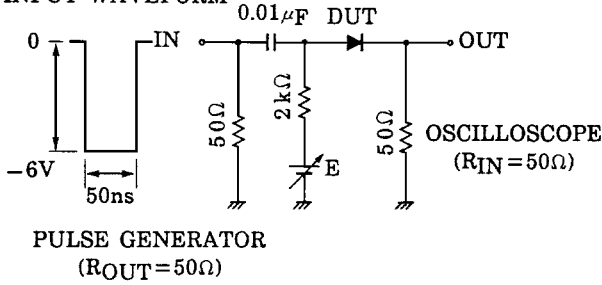
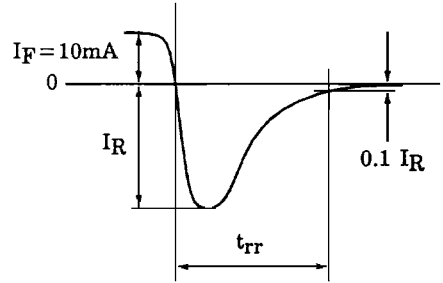


Fig. 1 REVERSE RECOVERY TIME ( $t_{rr}$ ) TEST CIRCUIT

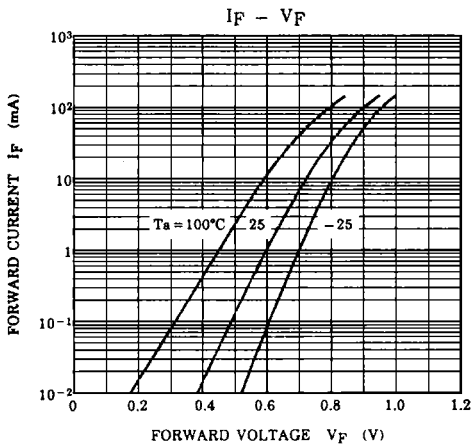
INPUT WAVEFORM



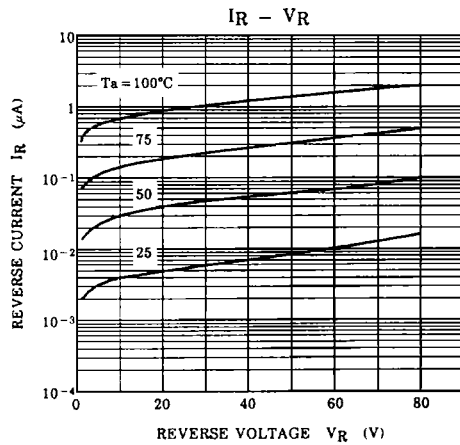
OUTPUT WAVEFORM



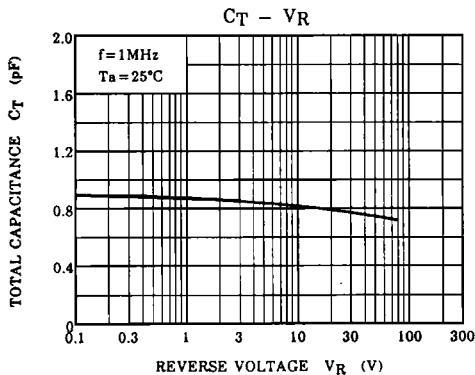
Q1, Q2, Q3, Q4, COMMON



Q1, Q2, Q3, Q4, COMMON



Q1, Q2, Q3, Q4, COMMON



Q1, Q2, Q3, Q4, COMMON

