

HN1D01FE

Ultra High Speed Switching Application

- HN1D02FU is composed of 2 unit of cathode common.
- Low forward voltage : $V_F(3) = 0.92V$ (typ.)
- Fast reverse recovery time : $t_{rr} = 1.6ns$ (typ.)
- Small total capacitance : $C_T = 2.2pF$ (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 | 100** | mW |
| Junction temperature | T_j | 150 | $^\circ C$ |
| Storage temperature | T_{stg} | -55~150 | $^\circ C$ |

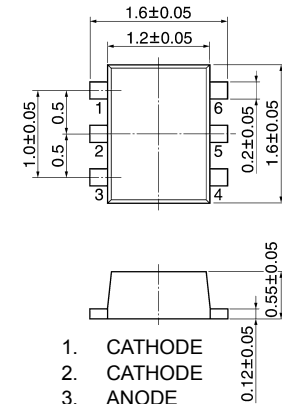
*: These are the Maximum Ratings for a single diode (Q1, Q2, Q3 or Q4).
Where Unit 1 and Unit 2 are used independently or simultaneously, the
Maximum Ratings per diode are 75% of those for a single diode.

** : Total rating.

Electrical Characteristics (Q1, Q2, Q3, Q4 Common; $T_a = 25^\circ C$)

| Characteristic | Symbol | Test Circuit | Test Condition | Min | Typ. | Max | Unit |
|-----------------------|----------|--------------|----------------------|-----|------|------|---------|
| Forward voltage | $V_F(1)$ | — | $I_F = 1mA$ | — | 0.61 | — | V |
| | $V_F(2)$ | — | $I_F = 10mA$ | — | 0.74 | — | |
| | $V_F(3)$ | — | $I_F = 100mA$ | — | 0.92 | 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 | — | $V_R = 0, f = 1MHz$ | — | 2.2 | — | pF |
| Reverse recovery time | t_{rr} | — | $I_F = 10mA$ (fig.1) | — | 1.6 | — | ns |

Unit in mm

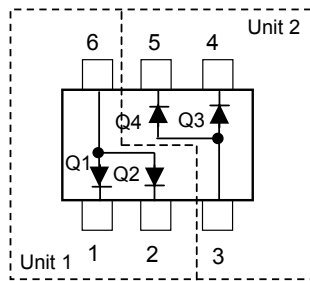


ES6

| | |
|---------|--------|
| JEDEC | — |
| JEITA | — |
| TOSHIBA | 1-2X1A |

Weight: 0.003g (typ.)

Pin Assignment (Top View)



Marking

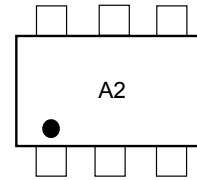
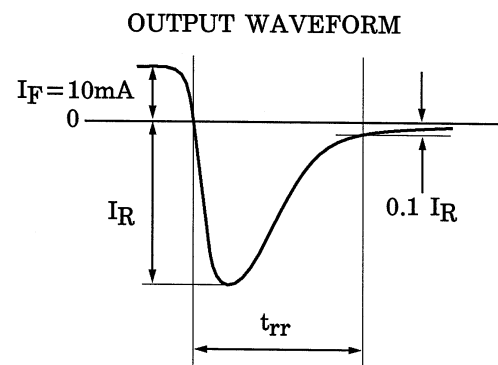
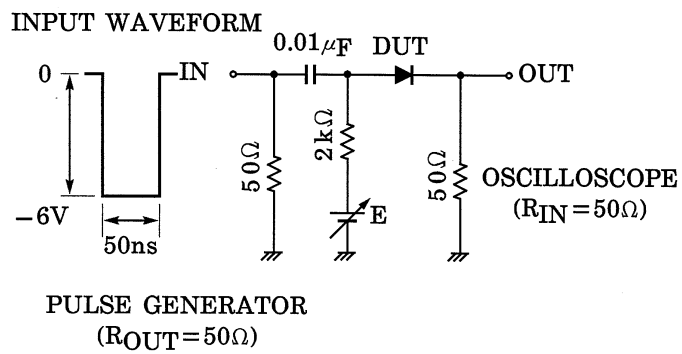
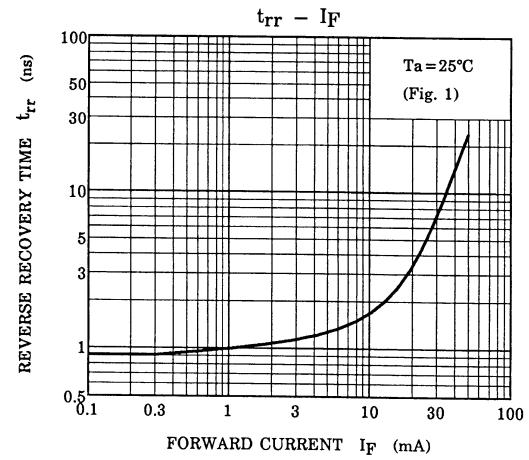
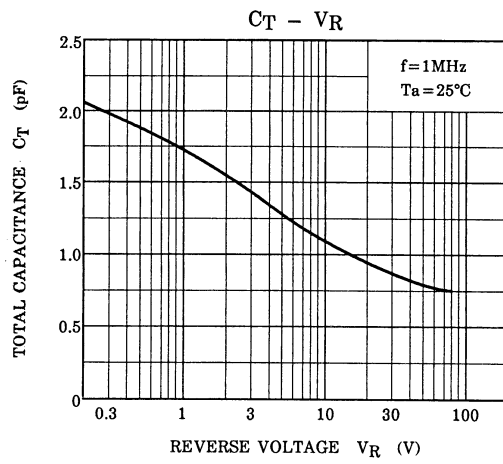
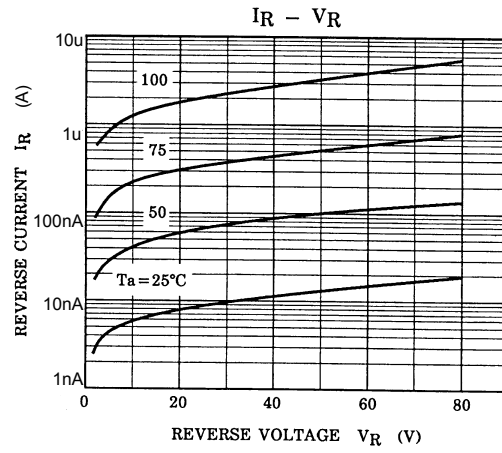
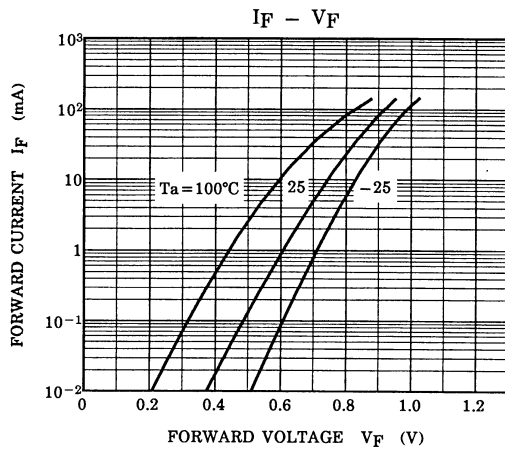


Fig. 1 Reverse Recovery Time (t_{rr}) Test Circuit





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