

1S1585 ~ 1S1588

Silicon Epitaxial Planar Type
Diode

ULTRA HIGH SPEED SWITCHING APPLICATIONS.

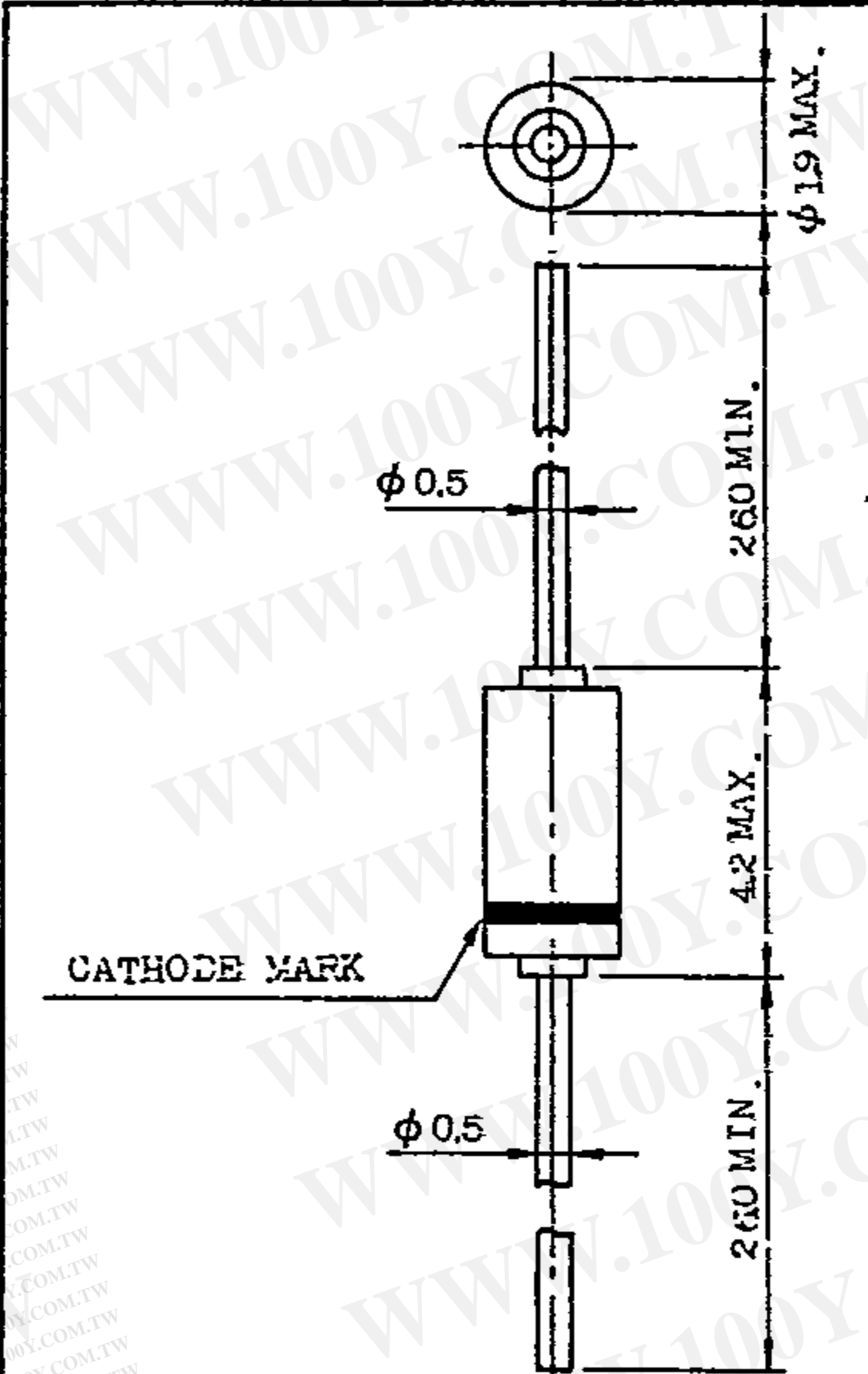
FEATURES:

- Low Forward Voltage : $V_F=1.0V$ (Max.)
- Small Total Capacitance : $C_T=2pF$ (Max.)
- Fast Reverse Recovery Time : $T_{rr}=2ns$ (Max.)

MAXIMUM RATINGS (Ta=25°C)

| CHARACTERISTIC | | SYMBOL | RATING | UNIT |
|--------------------------------|--------|----------|--------|------|
| Maximum (Peak) Reverse Voltage | 1S1585 | V_{RM} | 90 | V |
| | 1S1586 | | 55 | |
| | 1S1587 | | | |
| | 1S1588 | | 35 | |
| Reverse Voltage | 1S1585 | V_R | 80 | V |
| | 1S1586 | | 50 | |
| | 1S1587 | | | |
| | 1S1588 | | 30 | |
| Maximum (Peak) Forward Current | 1S1585 | I_{FM} | 480 | mA |
| | 1S1586 | | 400 | |
| | 1S1587 | | | |
| | 1S1588 | | 360 | |
| Average Forward Current | 1S1585 | I_O | 150 | mA |
| | 1S1586 | | 130 | |
| | 1S1587 | | | |
| | 1S1588 | | 120 | |

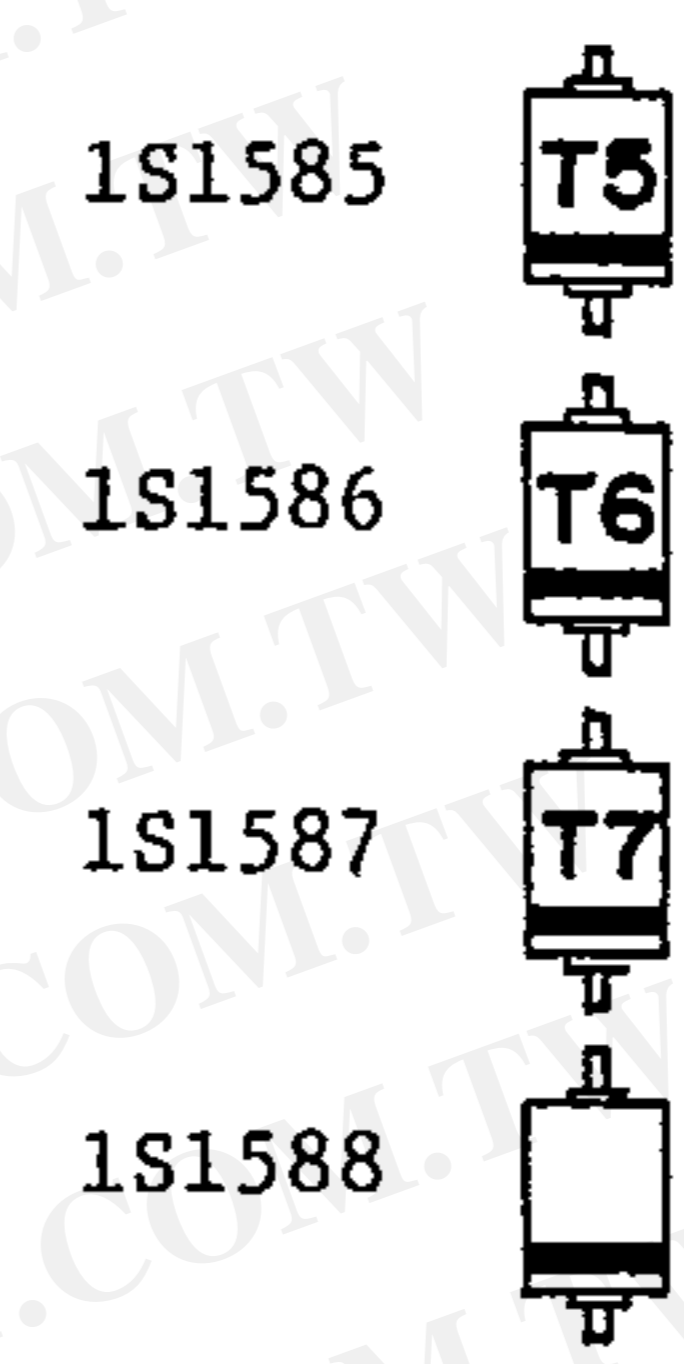
Unit in mm



| | |
|---------|--------|
| JEDEC | DO-35 |
| EIAJ | SC-40 |
| TOSHIBA | 1-2A1A |

Weight : 0.14g

Marking



TOSHIBA CORPORATION

1S1585~1S1588

| CHARACTERISTIC | | SYMBOL | RATING | UNIT |
|---------------------------|--------|-----------|-----------|------|
| Surge Current (1 sec) | 1S1585 | I_{FSM} | 700 | mA |
| | 1S1586 | | | |
| | 1S1587 | | 600 | |
| | 1S1588 | | | |
| Power Dissipation | | P | 300 | mW |
| Junction Temperature | | T_j | 175 | °C |
| Storage Temperature Range | | T_{stg} | -65 ~ 175 | °C |

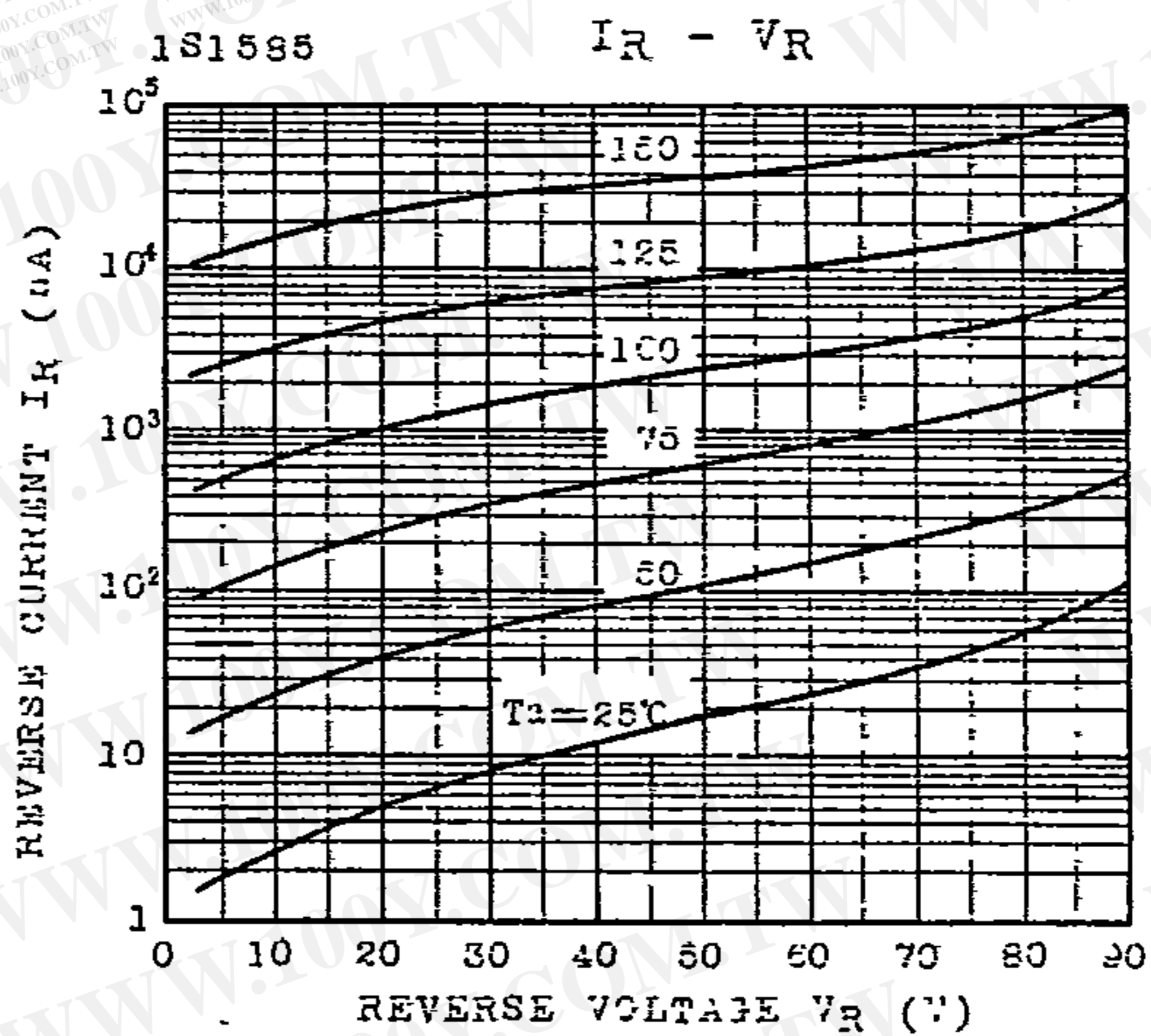
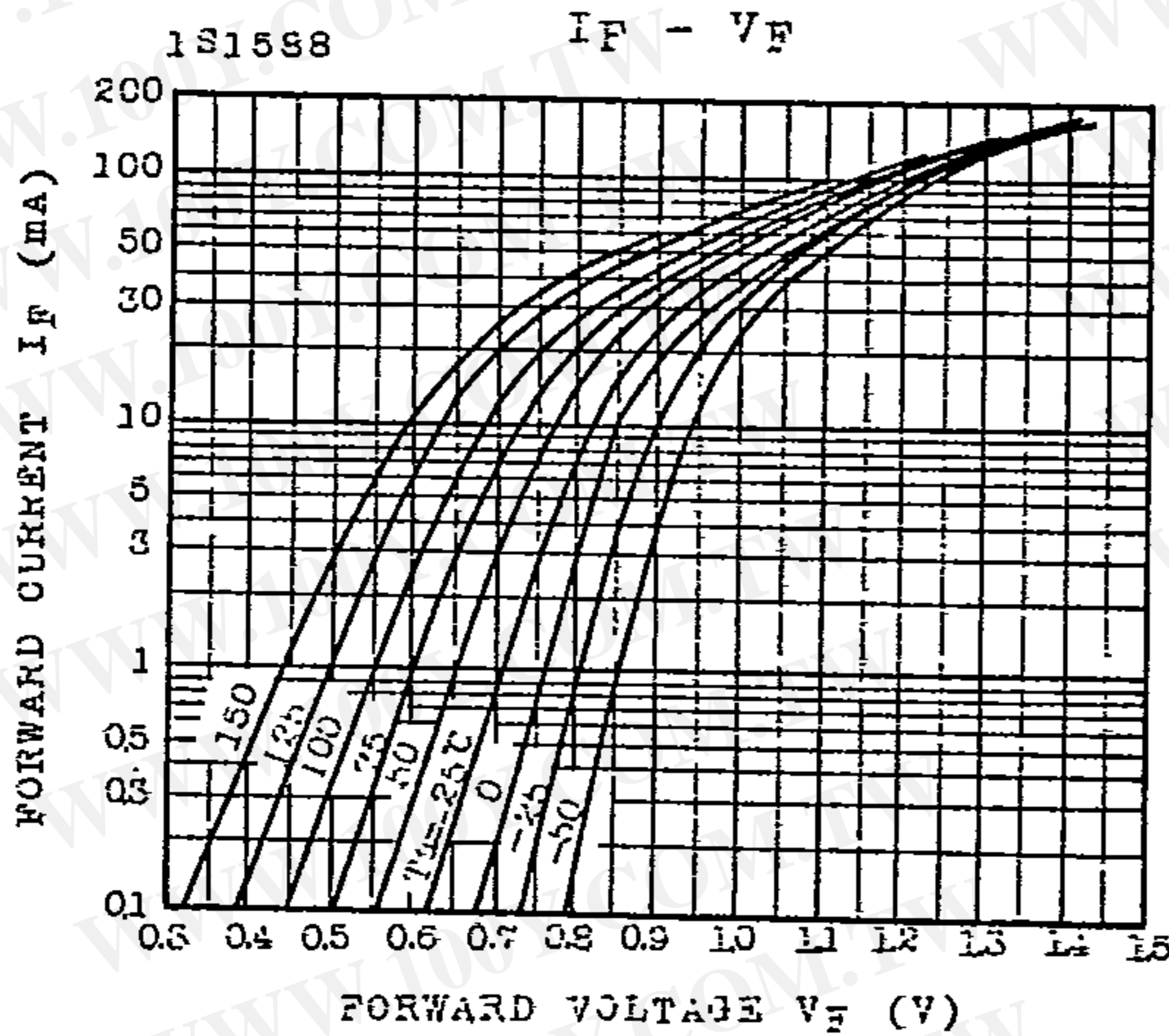
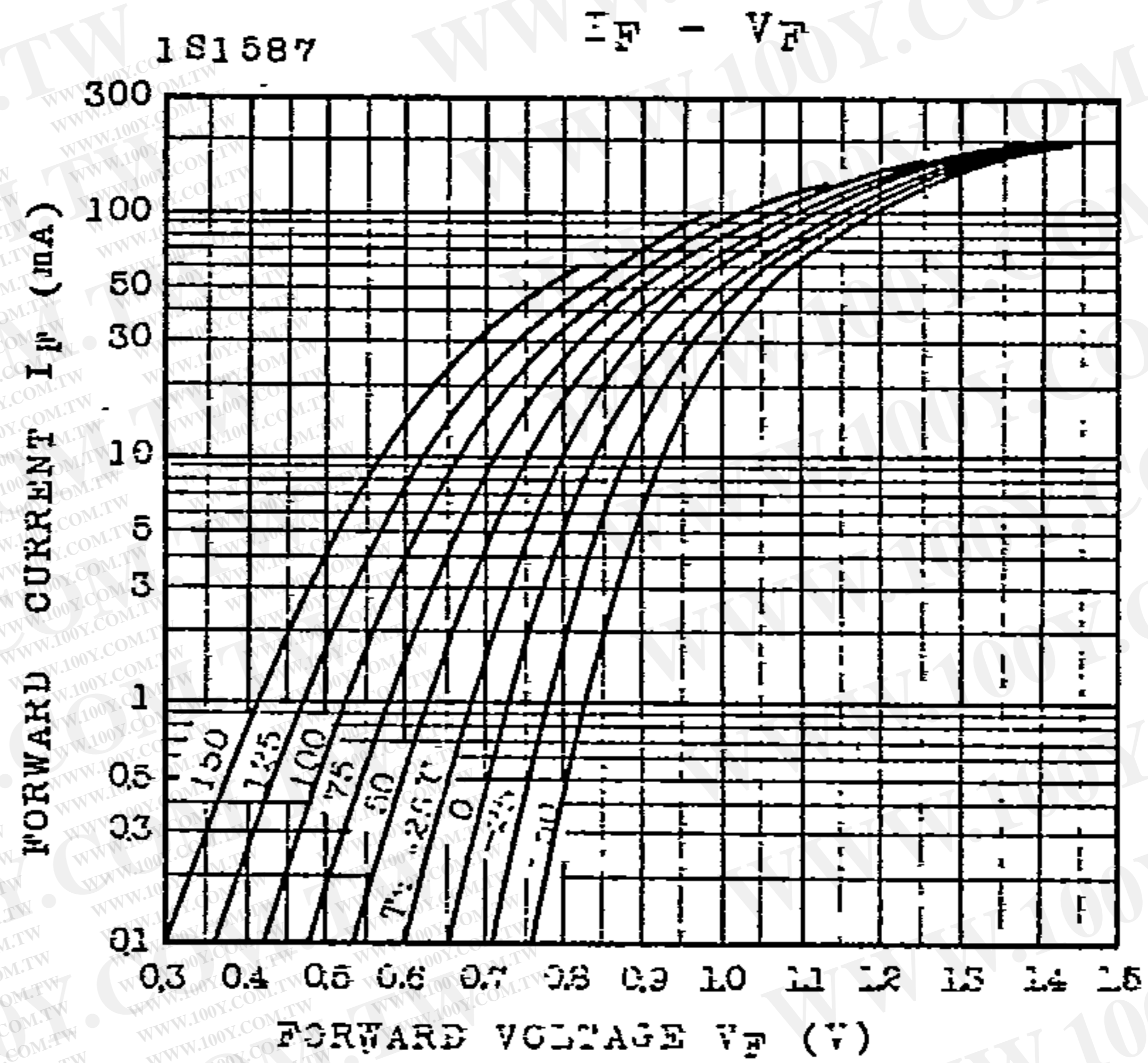
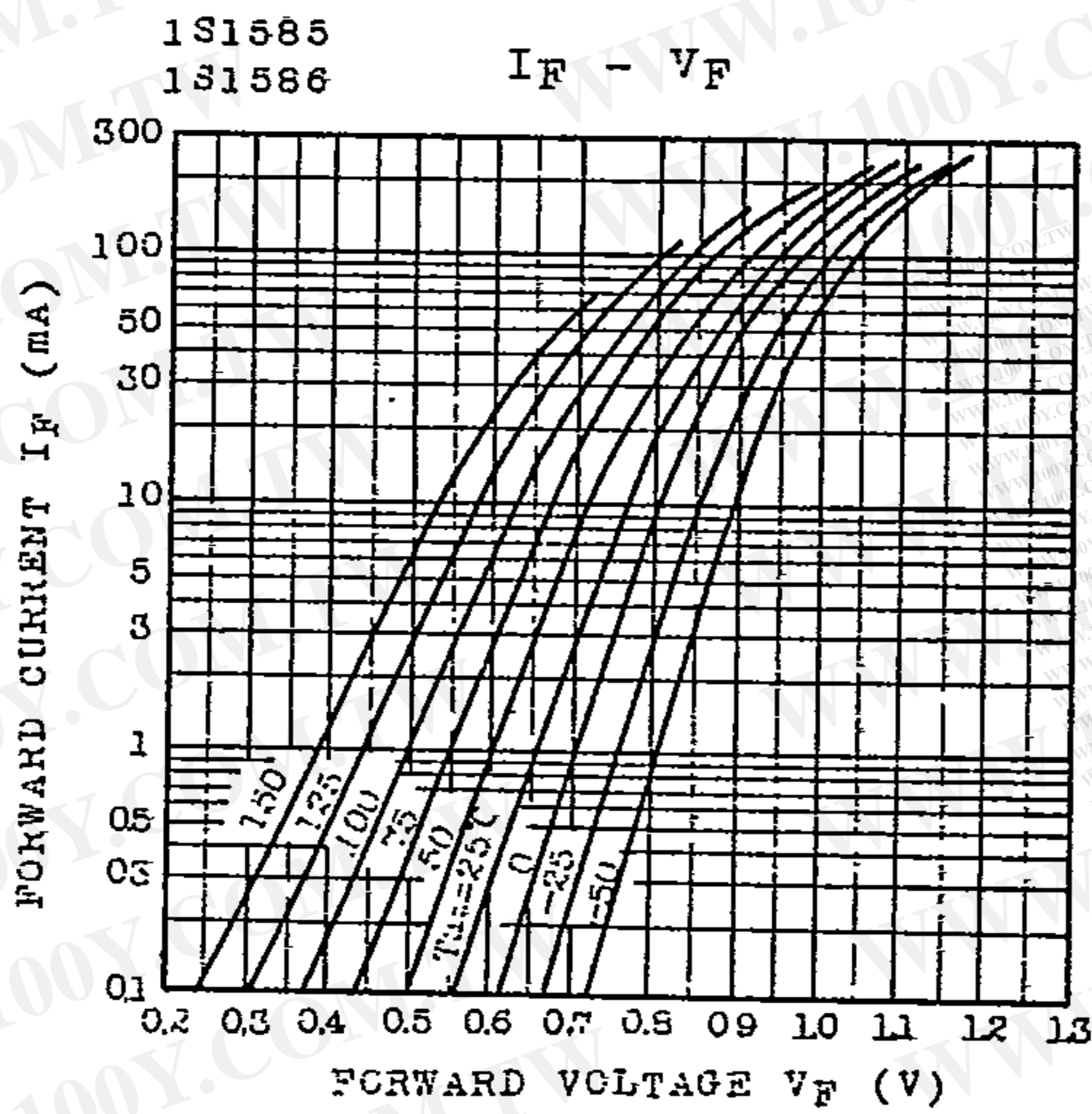
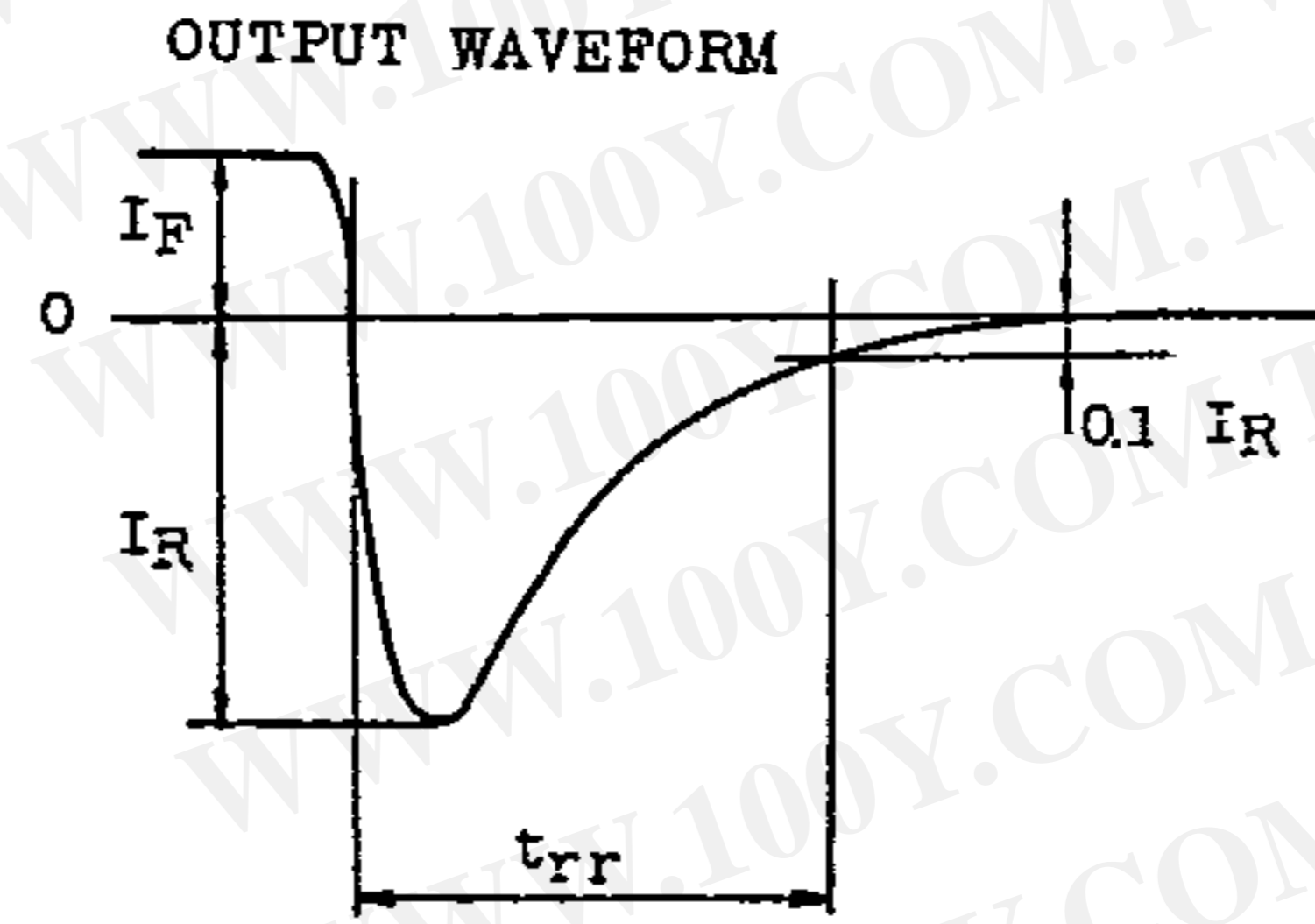
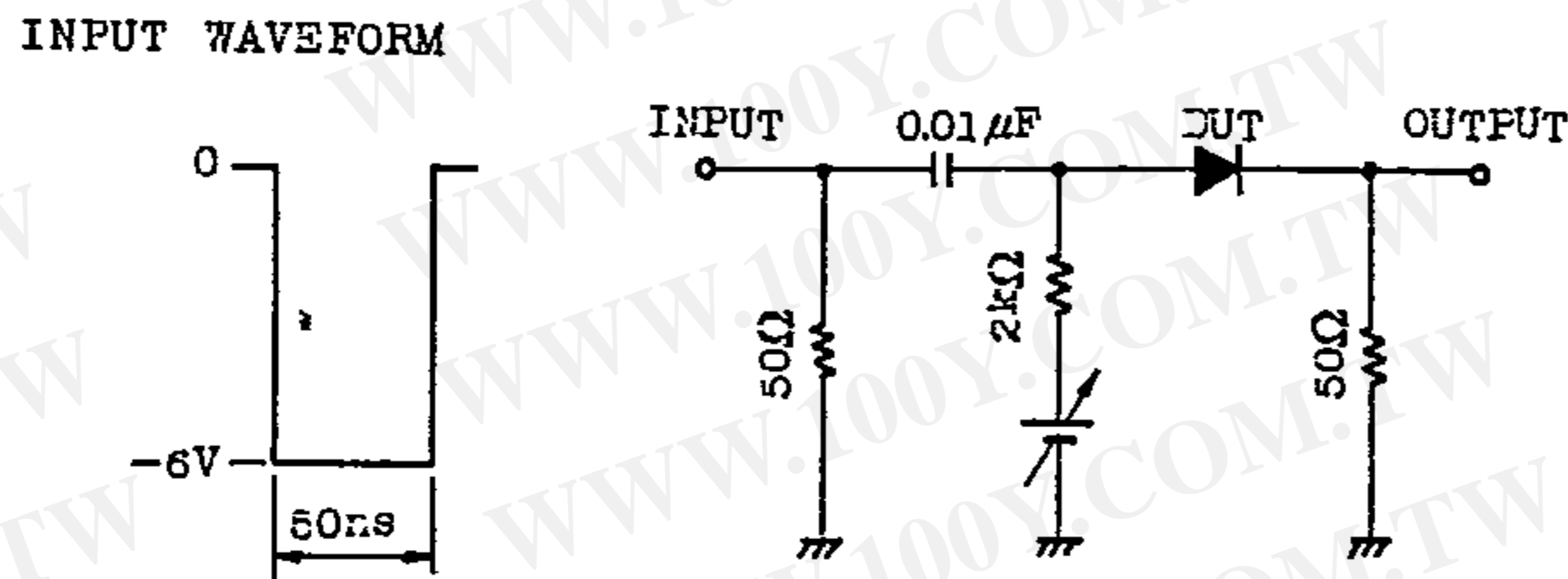
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

| CHARACTERISTIC | | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|-----------------------|--------|----------|---|------|------|------|---------------|
| Forward Voltage | 1S1585 | V_F | $I_F = 100\text{mA}$ | - | - | 1.0 | V |
| | 1S1586 | | | - | - | 1.2 | |
| | 1S1587 | | | - | - | 1.3 | |
| | 1S1588 | | | - | - | 1.3 | |
| Reverse Current | 1S1585 | I_R | $V_R = 80\text{V}$ | - | - | 0.5 | μA |
| | 1S1586 | | $V_R = 50\text{V}$ | - | - | | |
| | 1S1587 | | $V_R = 50\text{V}$ | - | - | | |
| | 1S1588 | | $V_R = 30\text{V}$ | - | - | | |
| Total Capacitance | 1S1585 | C_T | $V_R = 0$ $f = 1\text{MHz}$ | - | - | 2 | pF |
| | 1S1586 | | | - | - | 3 | |
| | 1S1587 | | | - | - | 3 | |
| | 1S1588 | | | - | - | 3 | |
| Reverse Recovery Time | 1S1585 | t_{rr} | $V_R = 6\text{V}$ $I_F = 10\text{mA}$ $R_L = 100\Omega$ (Fig.) | - | - | 2 | ns |
| | 1S1586 | | | - | - | 2 | |
| | 1S1587 | | | - | - | 2 | |
| | 1S1588 | | | - | - | 4 | |

TOSHIBA CORPORATION

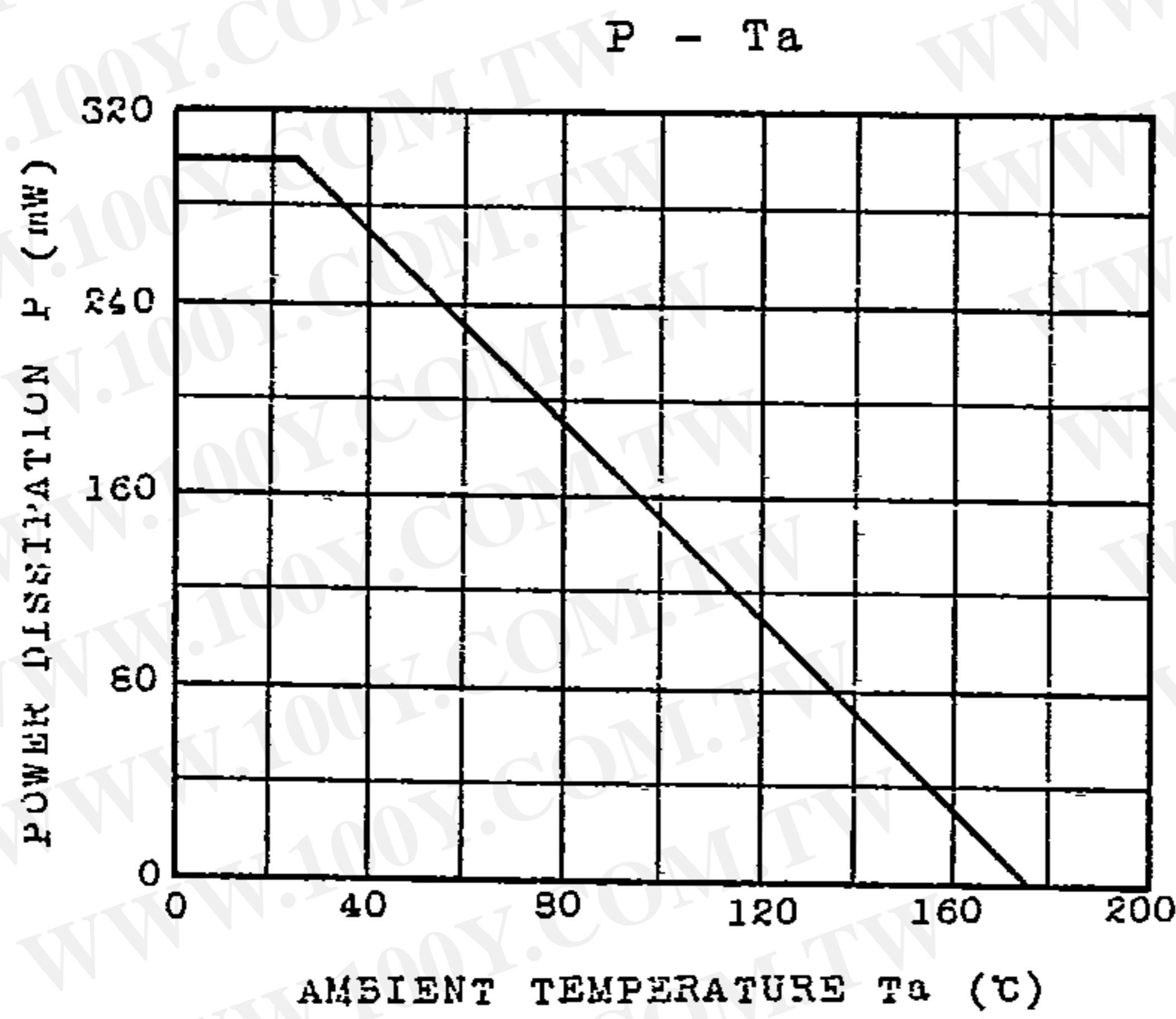
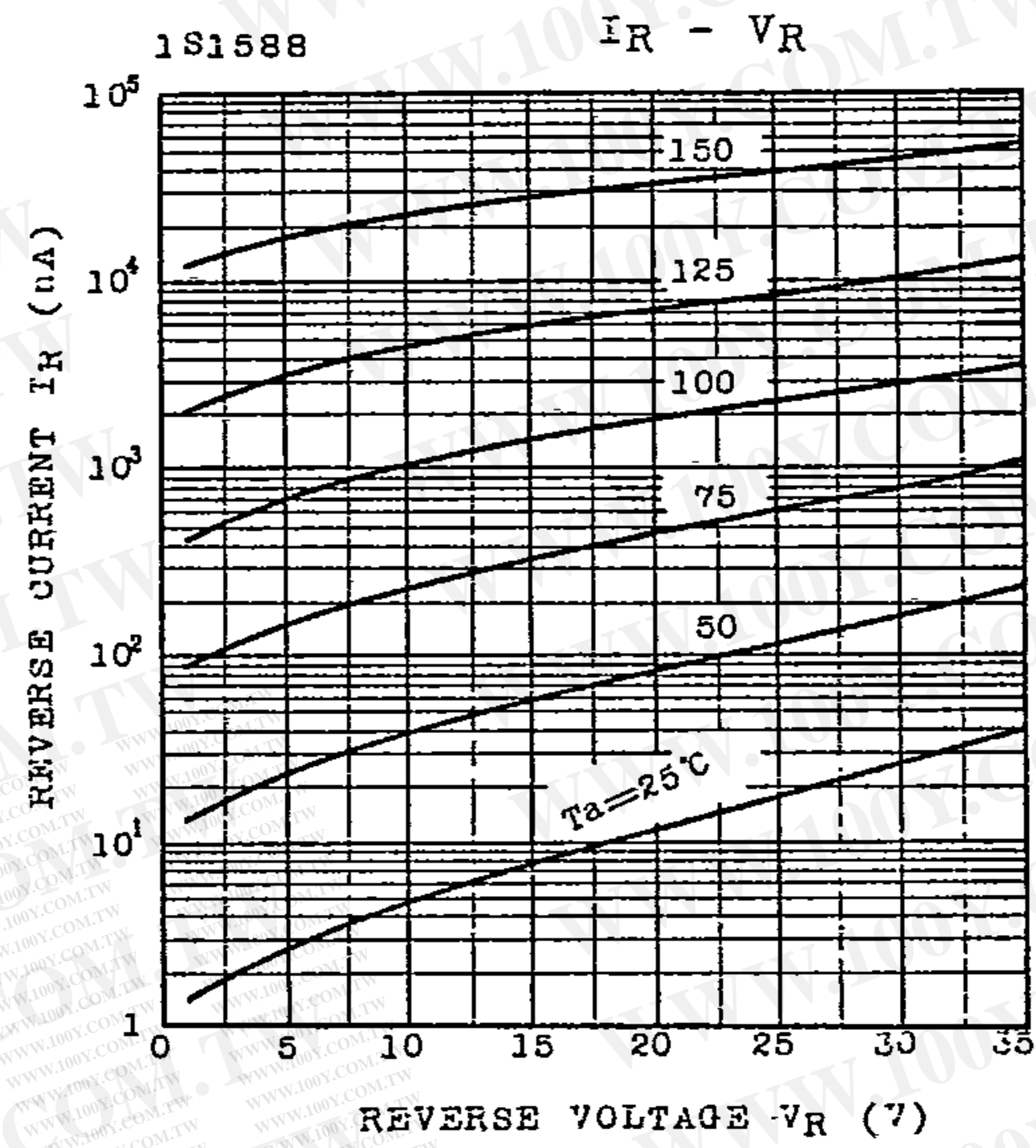
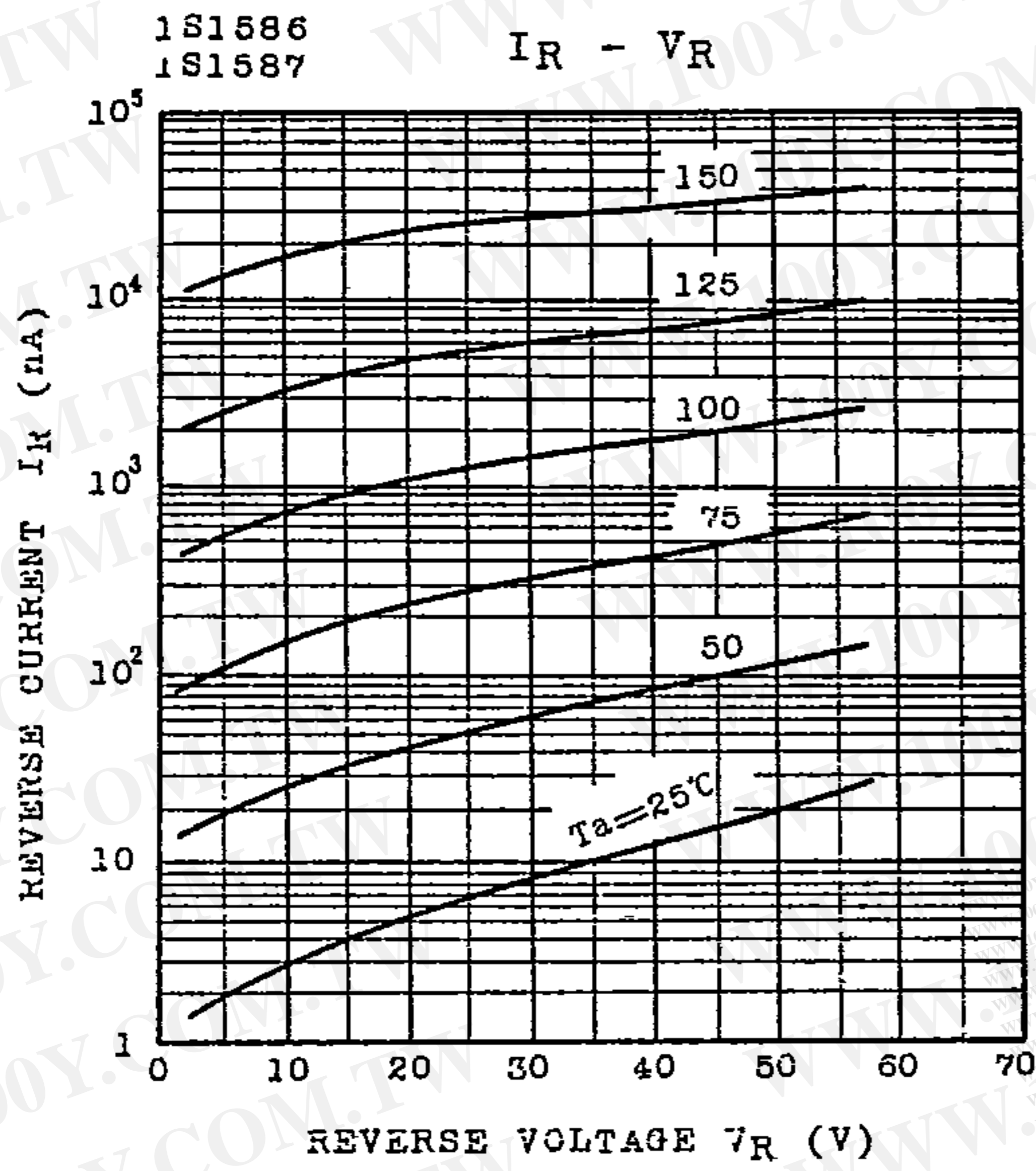
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Fig. t_{rr} TEST CIRCUIT



TOSHIBA CORPORATION

1S1585~1S1588



TOSHIBA CORPORATION