

1S1585 ~ 1S1588

Silicon Epitaxial Planar Type
Diode

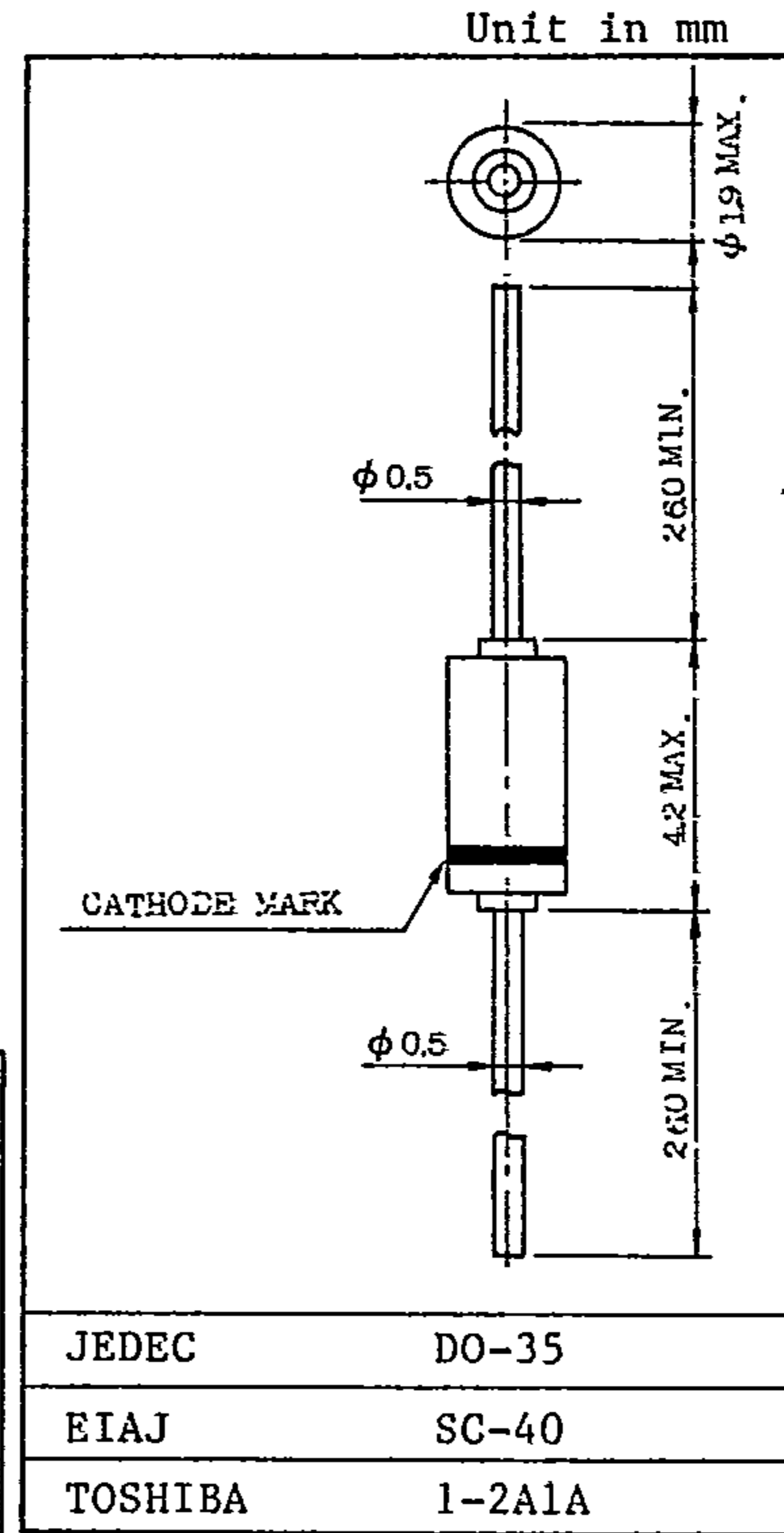
ULTRA HIGH SPEED SWITCHING APPLICATIONS.

FEATURES:

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

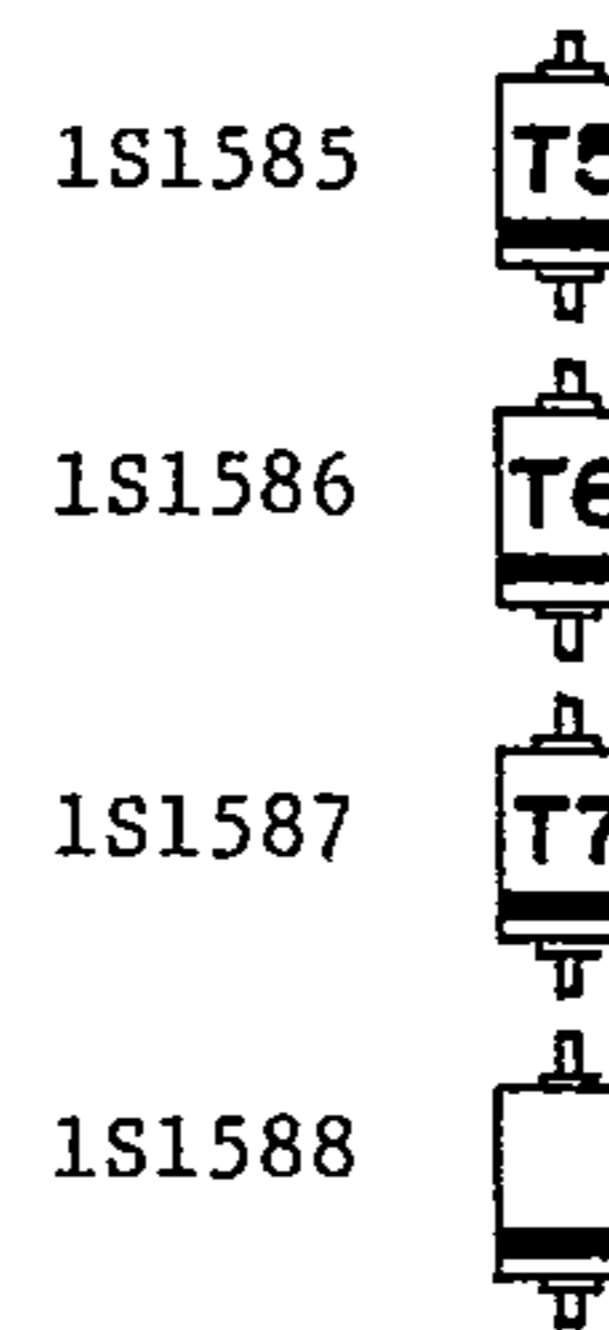
MAXIMUM RATINGS (Ta=25°C)

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



Weight : 0.14g

Marking



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| CHARACTERISTIC | | SYMBOL | RATING | UNIT |
|---------------------------|--------|------------------|-----------|------|
| Surge Current (1 sec) | 1S1585 | I _{FSM} | 700 | mA |
| | 1S1586 | | | |
| | 1S1587 | | 600 | |
| | 1S1588 | | 500 | |
| Power Dissipation | | P | 300 | mW |
| Junction Temperature | | T _j | 175 | °C |
| Storage Temperature Range | | T _{stg} | -65 ~ 175 | °C |

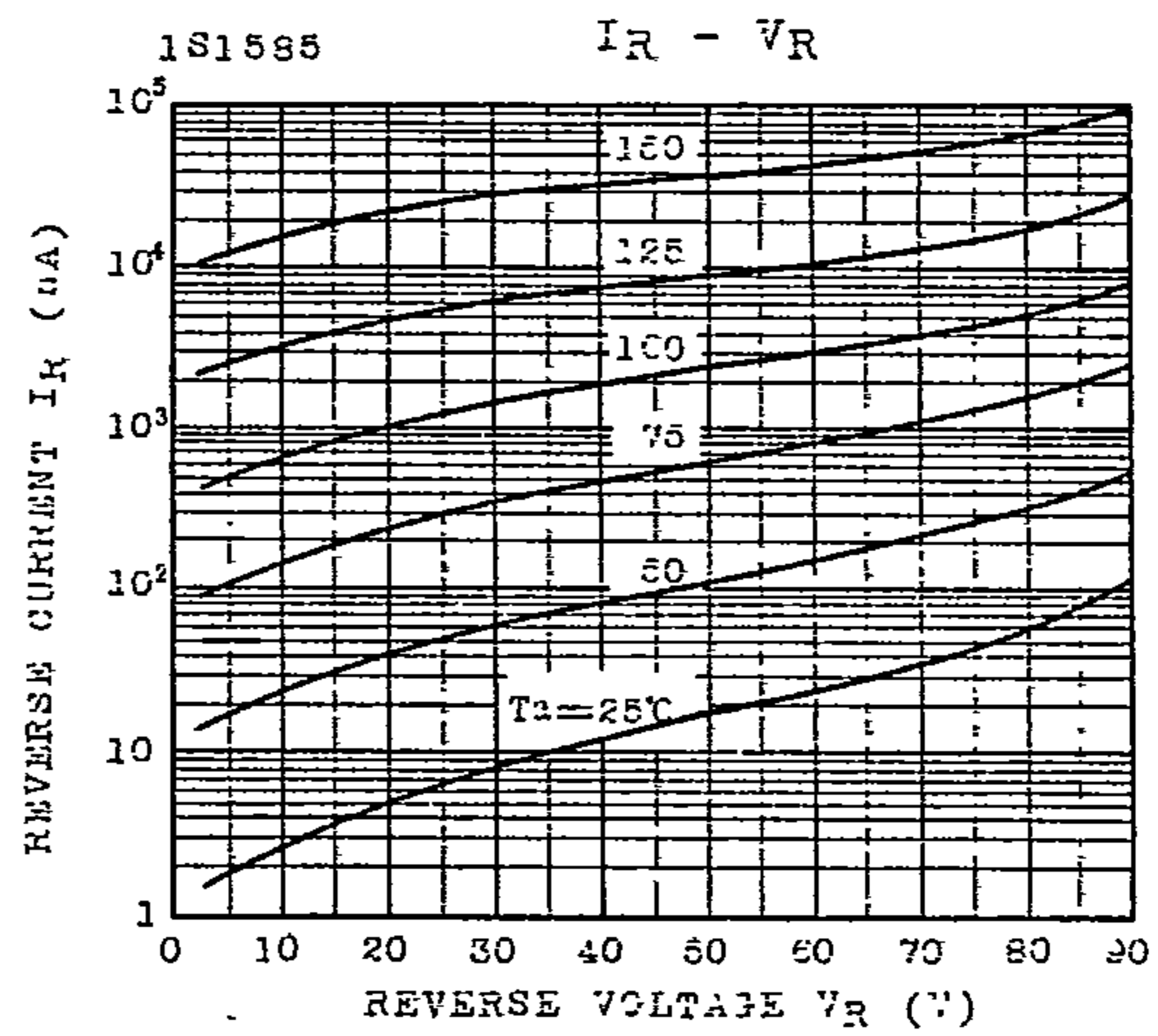
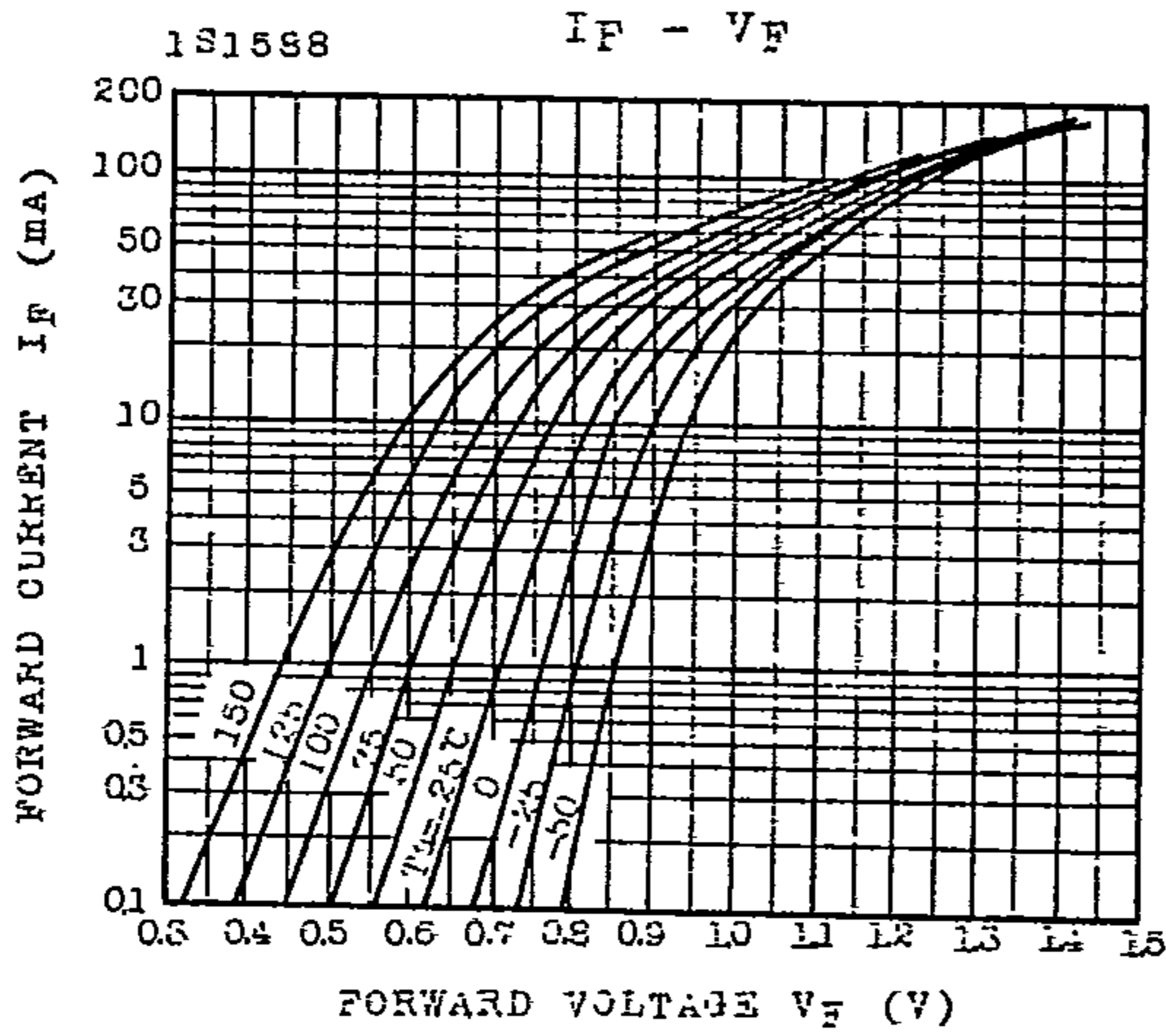
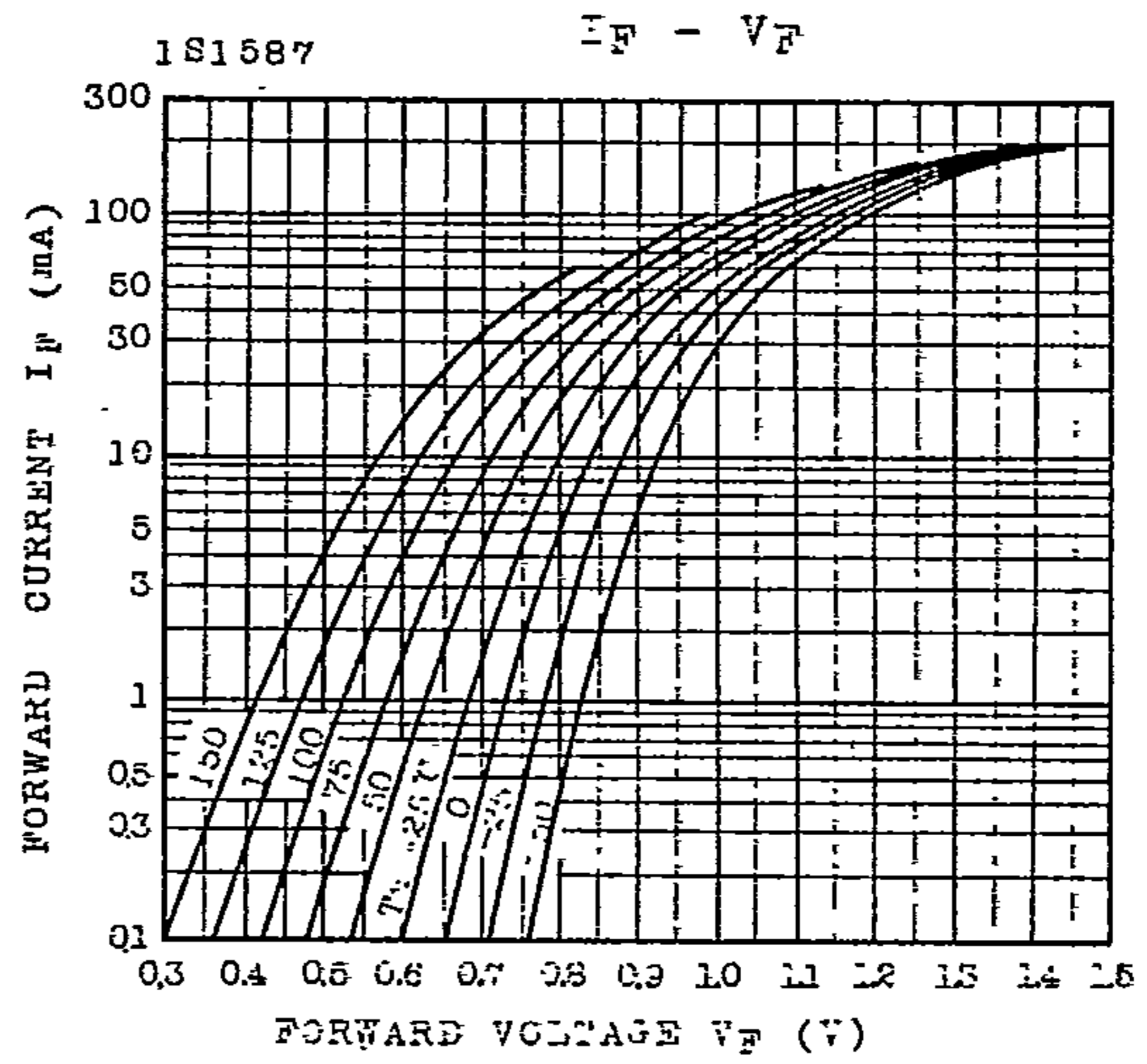
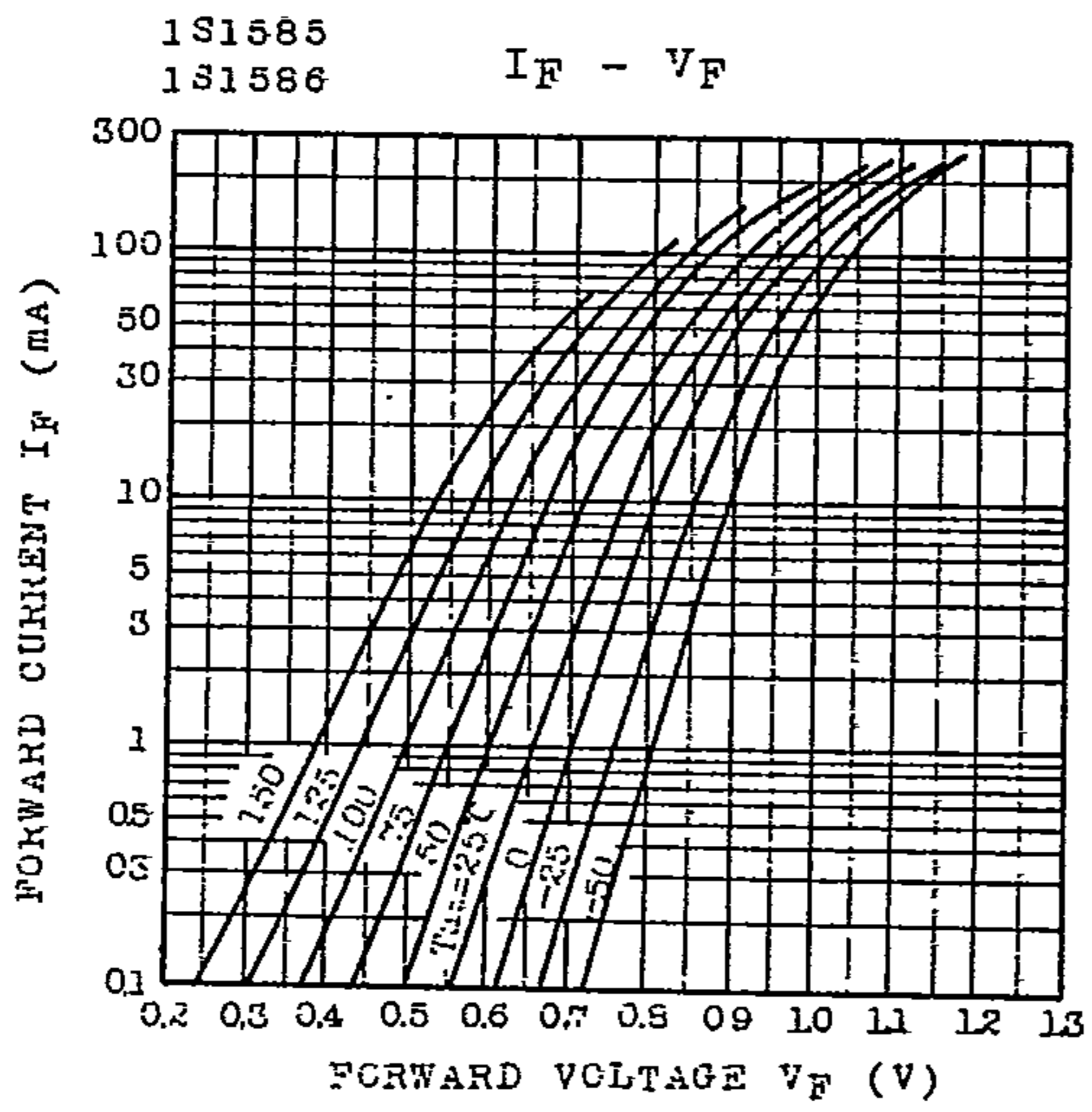
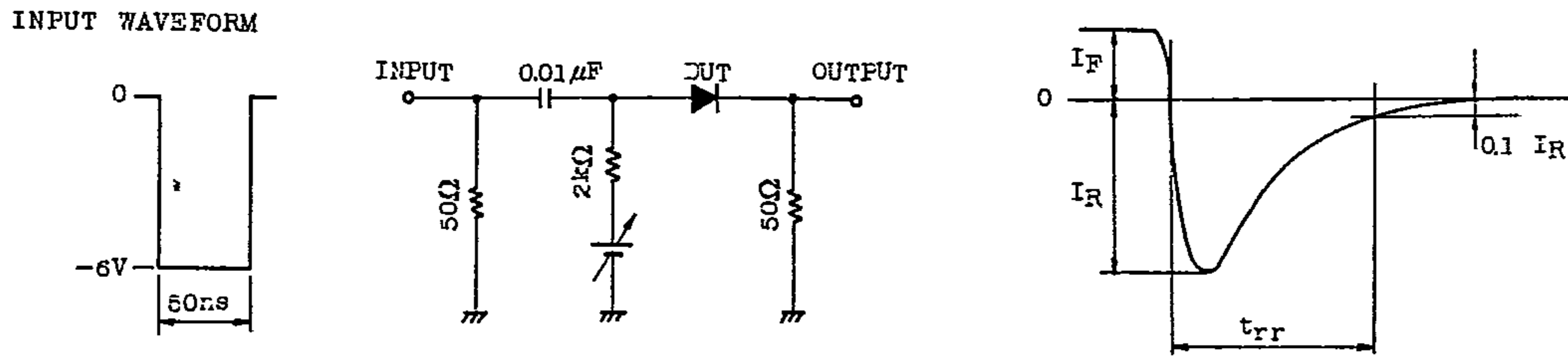
ELECTRICAL CHARACTERISTICS (T_a=25°C)

| CHARACTERISTIC | | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|-----------------------|--------|-----------------|---|------|------|------|------|
| Forward Voltage | 1S1585 | V _F | I _F = 100mA | - | - | 1.0 | V |
| | 1S1586 | | | | | 1.2 | |
| | 1S1587 | | | | | 1.3 | |
| | 1S1588 | | | | | | |
| Reverse Current | 1S1585 | I _R | V _R = 80V | - | - | 0.5 | μA |
| | 1S1586 | | V _R = 50V | | | | |
| | 1S1587 | | | | | | |
| | 1S1588 | | V _R = 30V | | | | |
| Total Capacitance | 1S1585 | C _T | V _R = 0 f = 1MHz | - | - | 2 | pF |
| | 1S1586 | | | | | | |
| | 1S1587 | | | | | | |
| | 1S1588 | | | | | 3 | |
| Reverse Recovery Time | 1S1585 | t _{rr} | V _R = 6V I _F = 10mA R _L = 100Ω (Fig.) | - | - | 2 | ns |
| | 1S1586 | | | | | | |
| | 1S1587 | | | | | | |
| | 1S1588 | | | | | | |

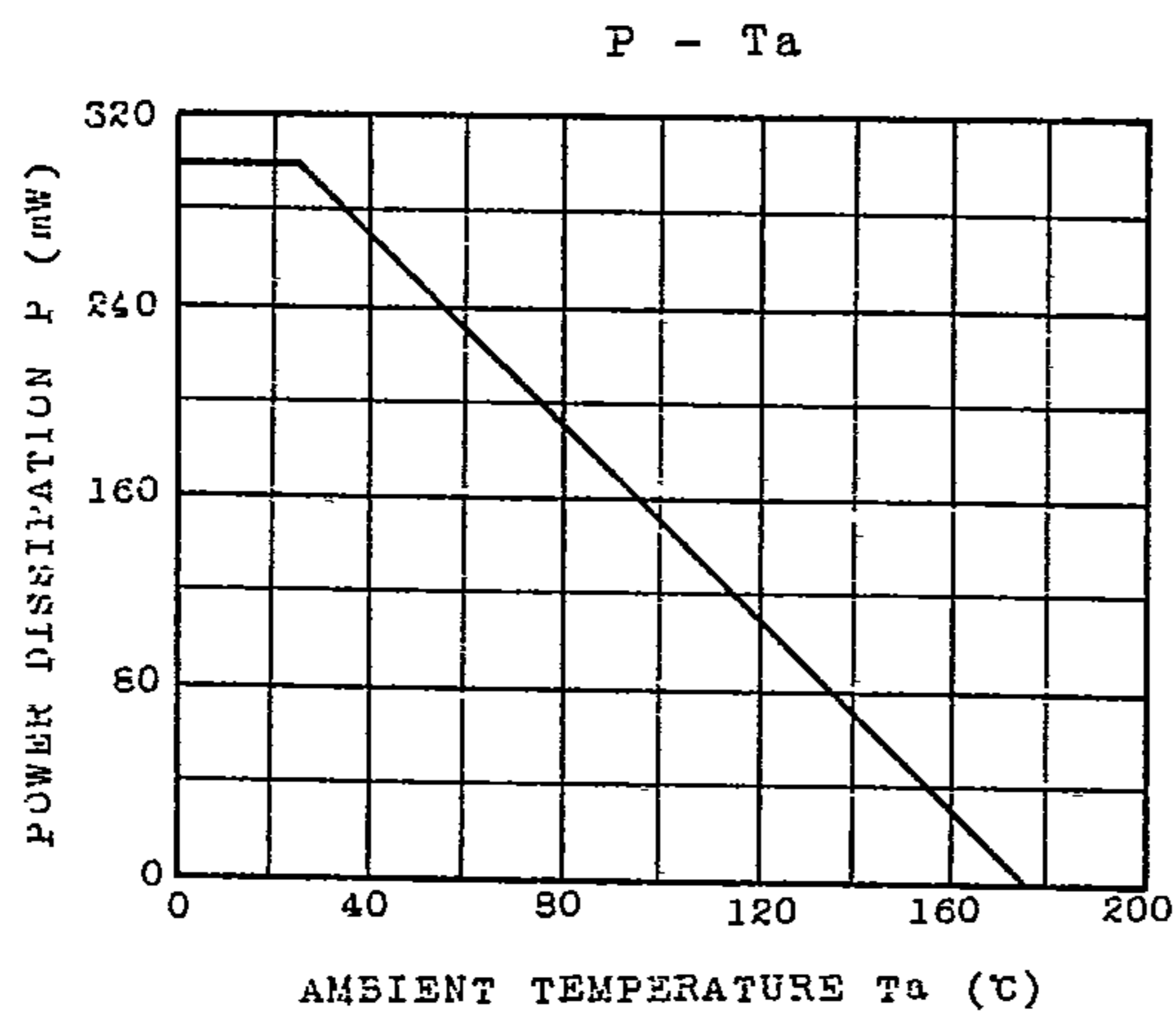
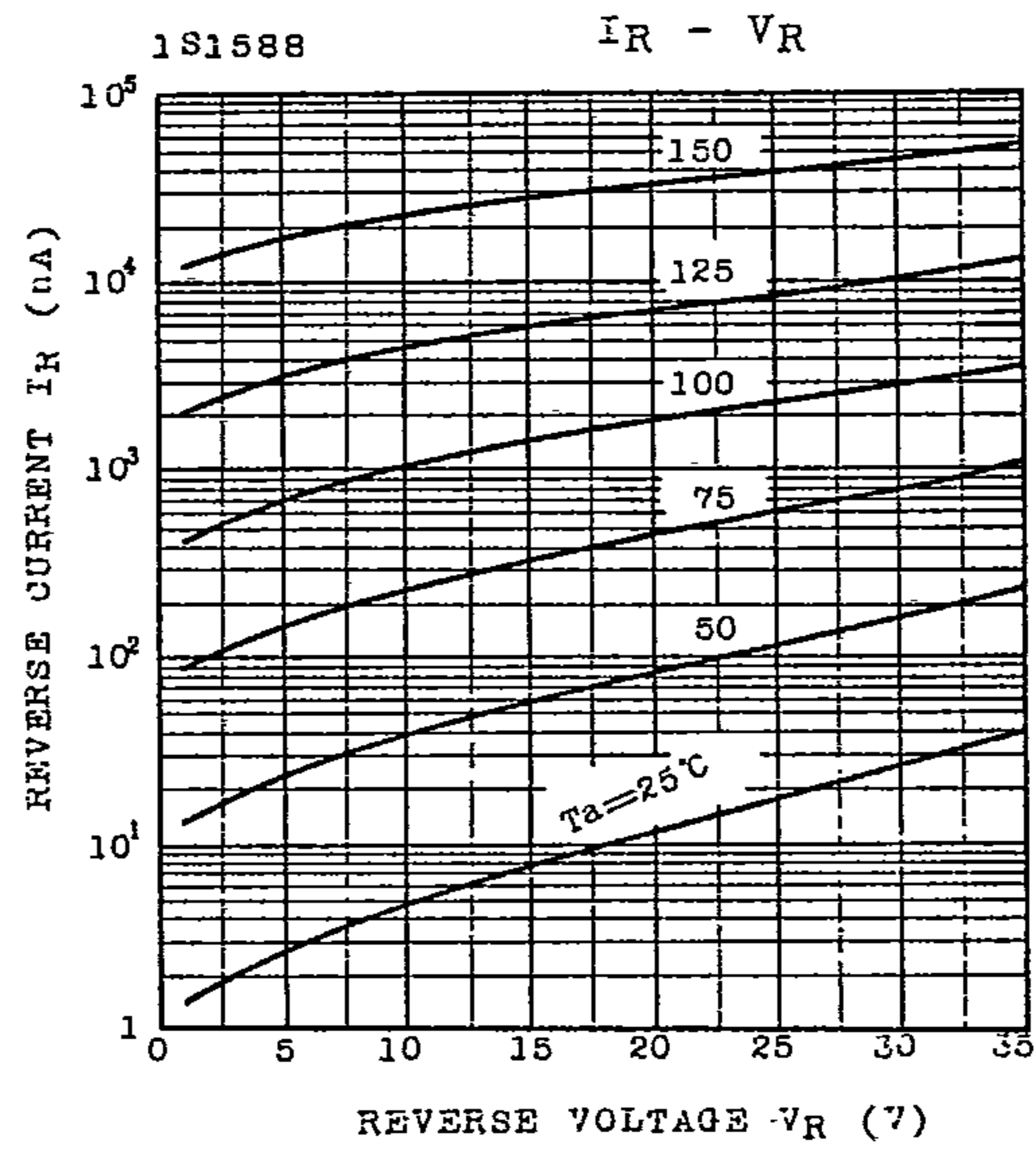
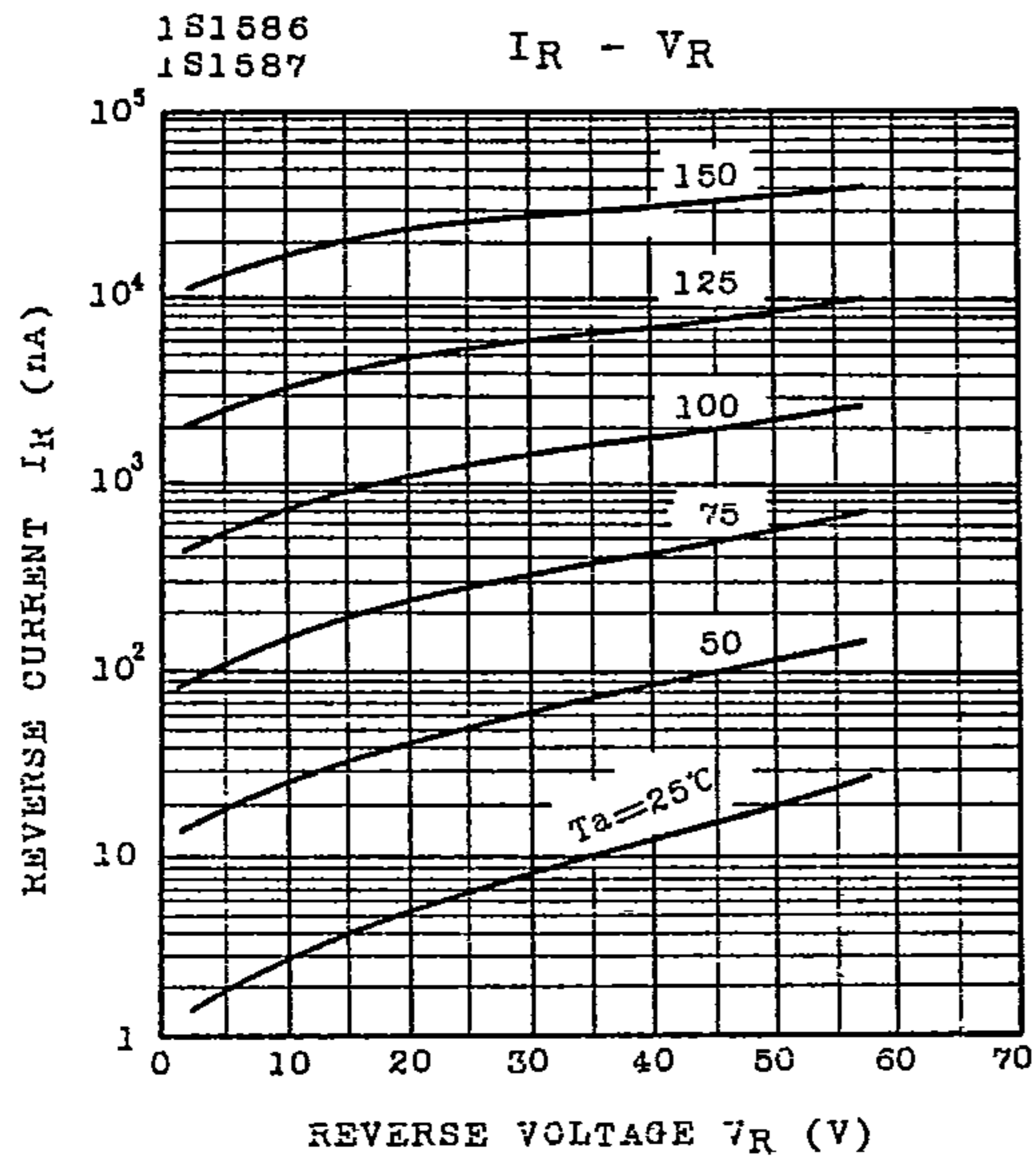
TOSHIBA CORPORATION

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Fig. t_{rr} TEST CIRCUIT



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TOSHIBA CORPORATION

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