

1S1585~1S1588

Silicon Epitaxial Planar Type
Diode

ULTRA HIGH SPEED SWITCHING APPLICATIONS.

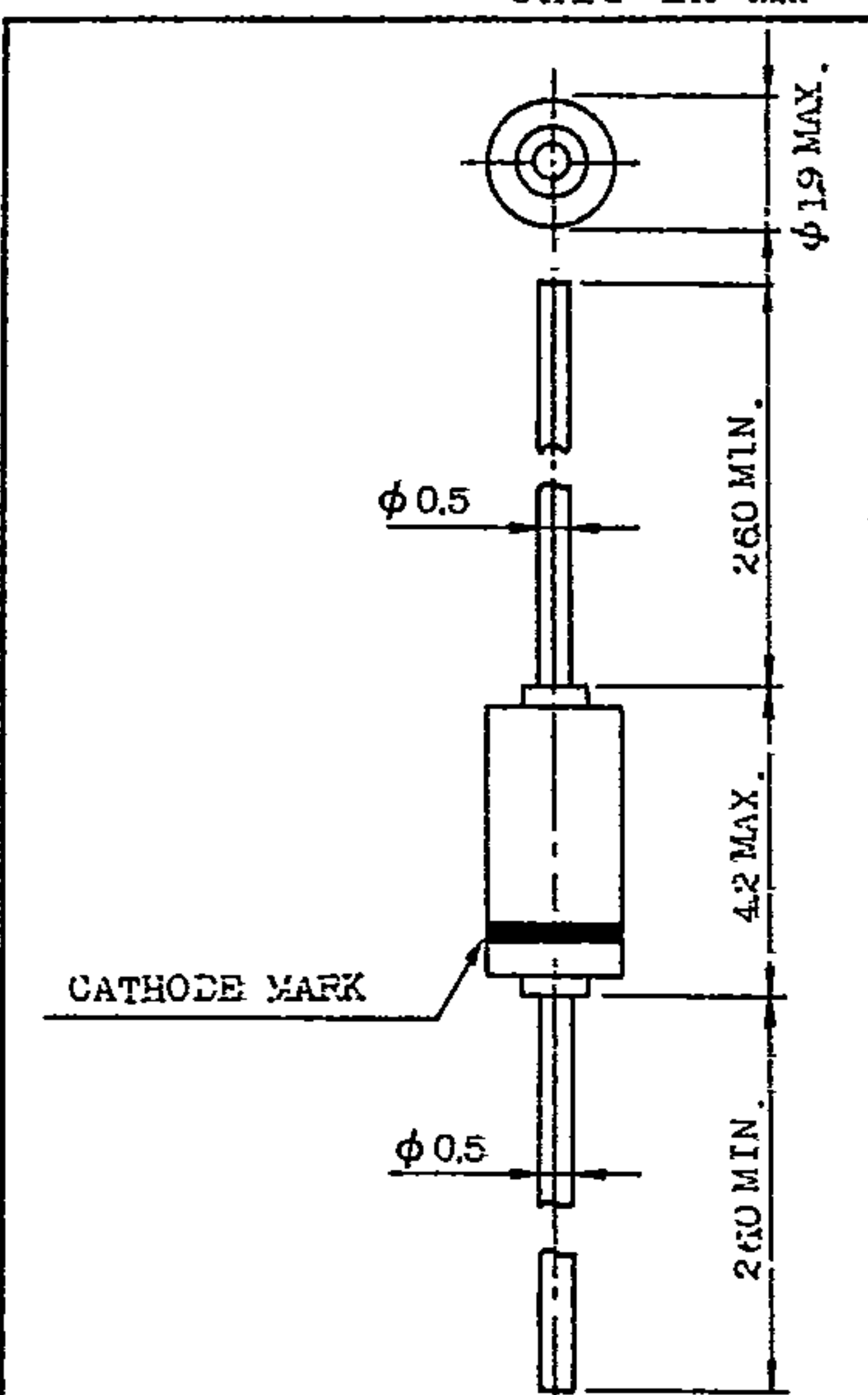
FEATURES:

- 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 ($T_a=25^\circ C$)

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

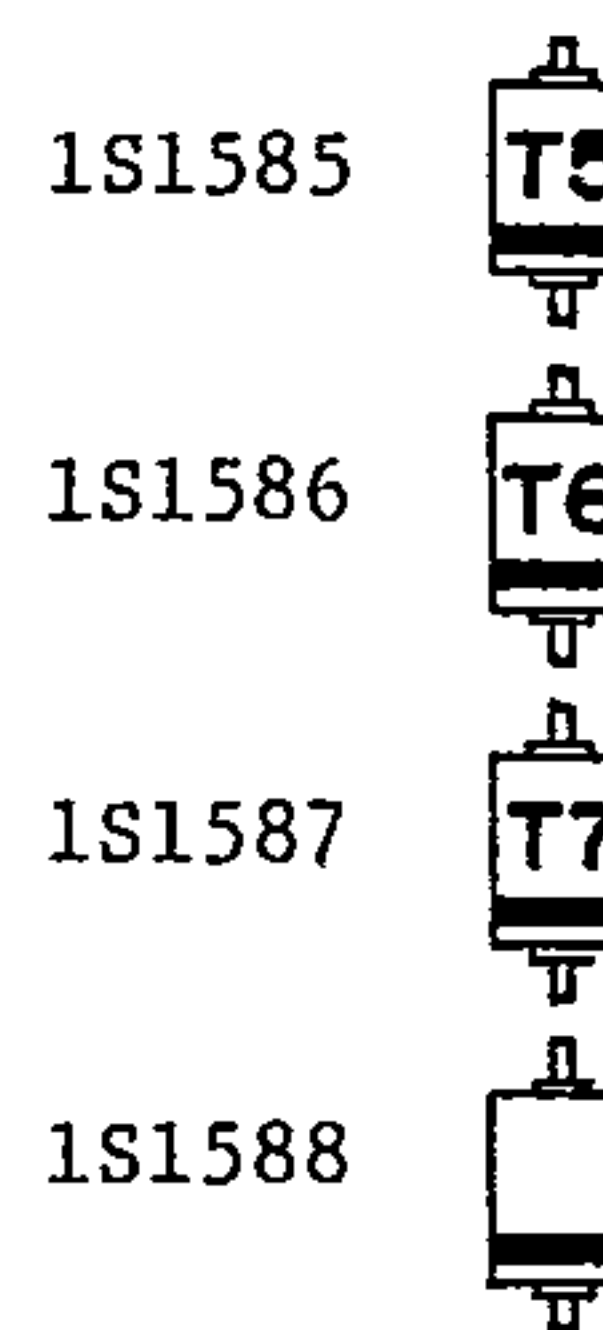
Unit in mm



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

Weight : 0.14g

Marking



1S1585~1S1588

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 (Ta=25°C)

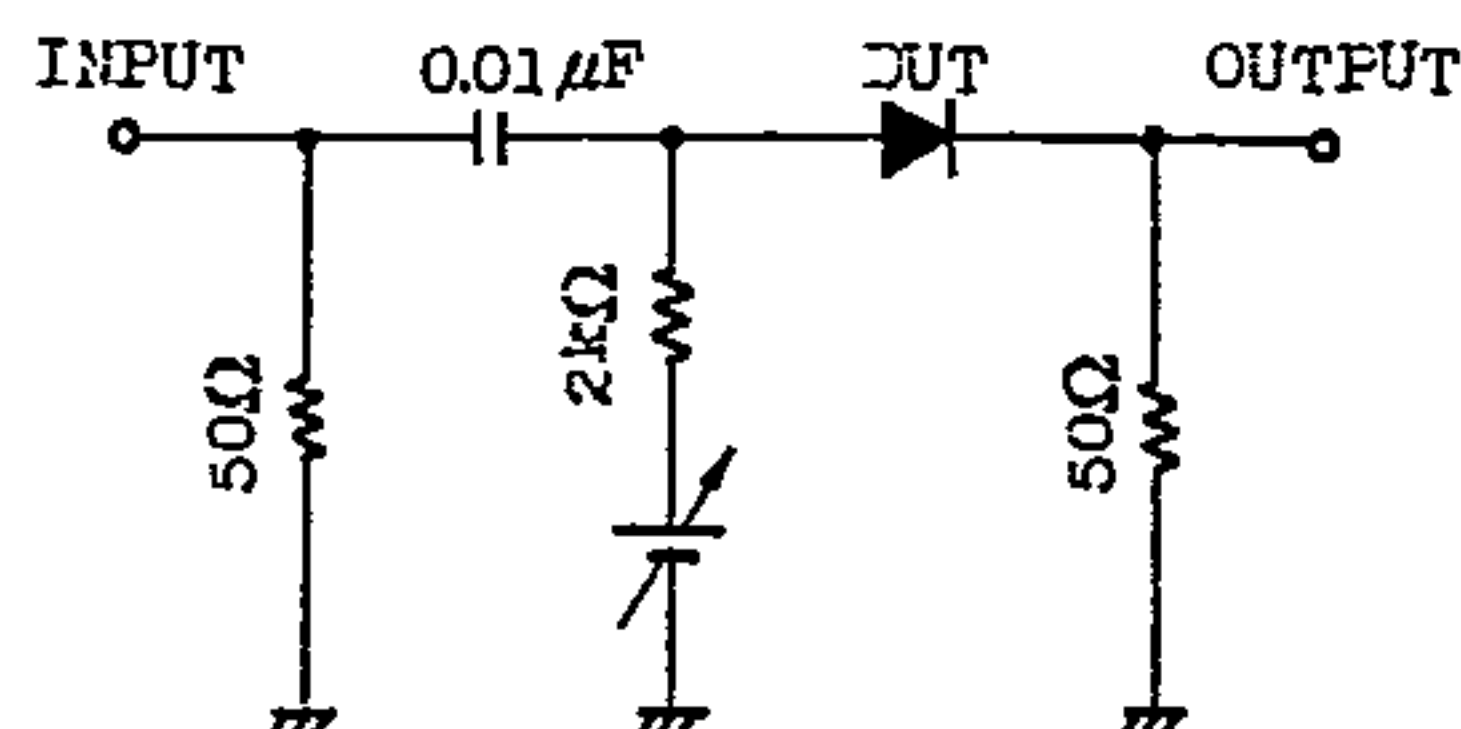
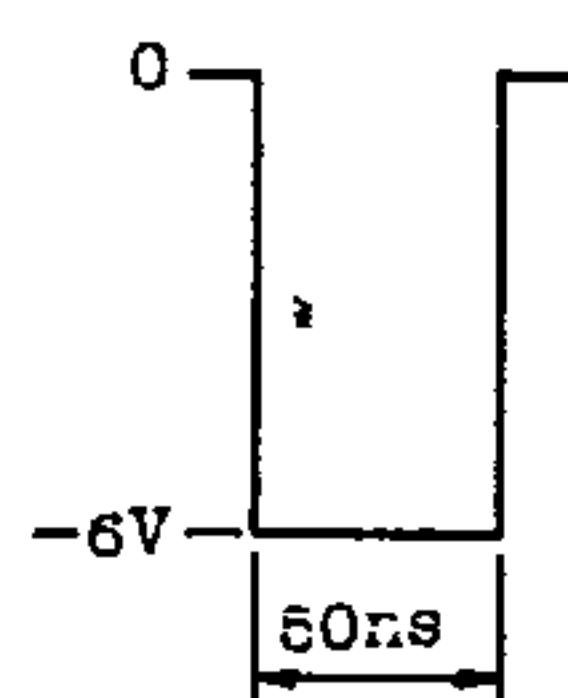
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	1S1585	V _F	I _F = 100mA	-	-	1.0	V
	1S1586			-	-	1.2	
	1S1587			-	-	1.3	
	1S1588			-	-	1.3	
Reverse Current	1S1585	I _R	V _R = 80V	-	-	0.5	μA
	1S1586		V _R = 50V				
	1S1587		V _R = 50V				
	1S1588		V _R = 30V				
Total Capacitance	1S1585	C _T	V _R = 0 f = 1MHz	-	-	2	pF
	1S1586			-	-	2	
	1S1587			-	-	2	
	1S1588			-	-	3	
Reverse Recovery Time	1S1585	t _{rr}	V _R = 6V	-	-	2	ns
	1S1586		I _F = 10mA				
	1S1587		R _L = 100Ω				
	1S1588		(Fig.)			4	

TOSHIBA CORPORATION

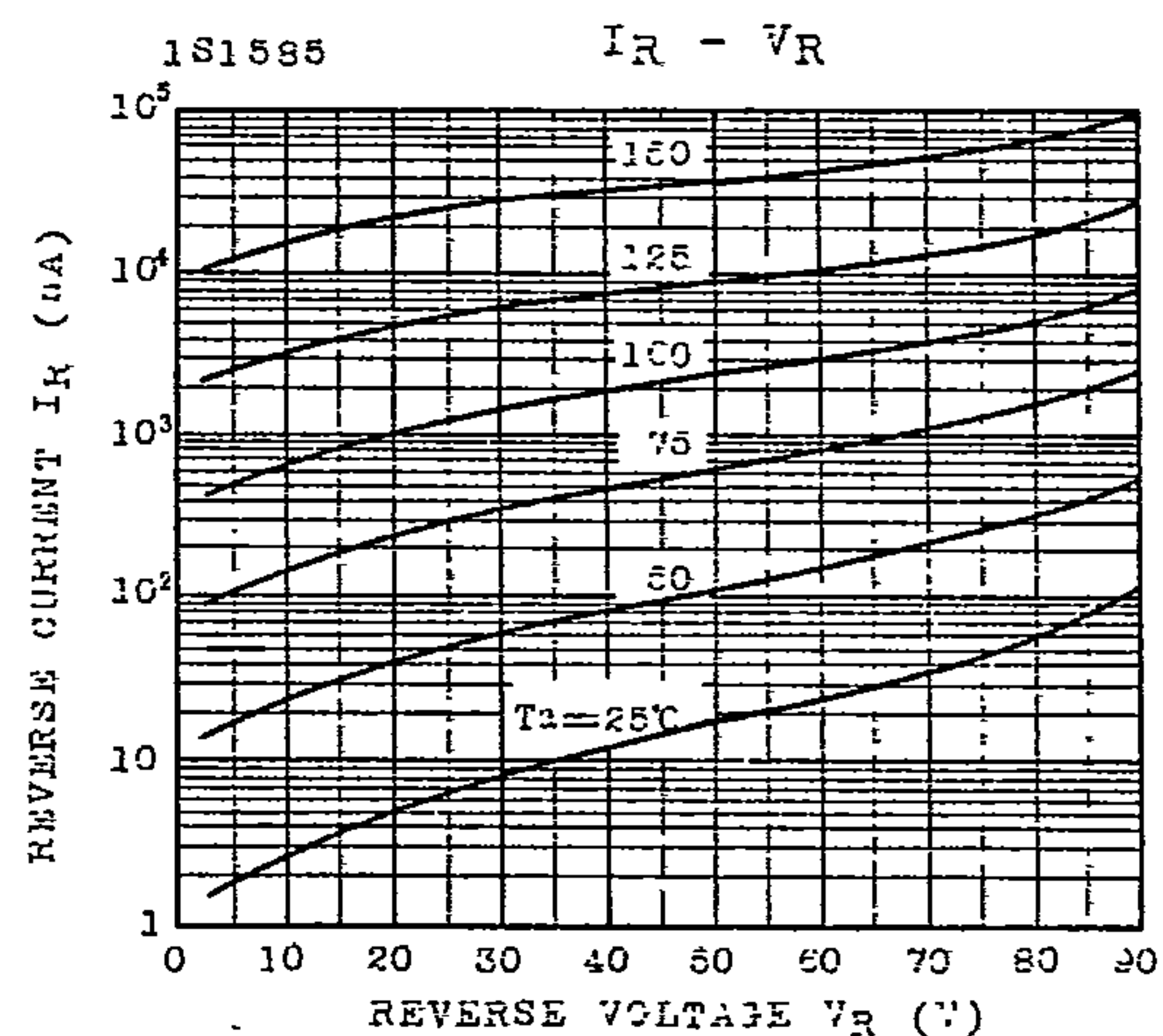
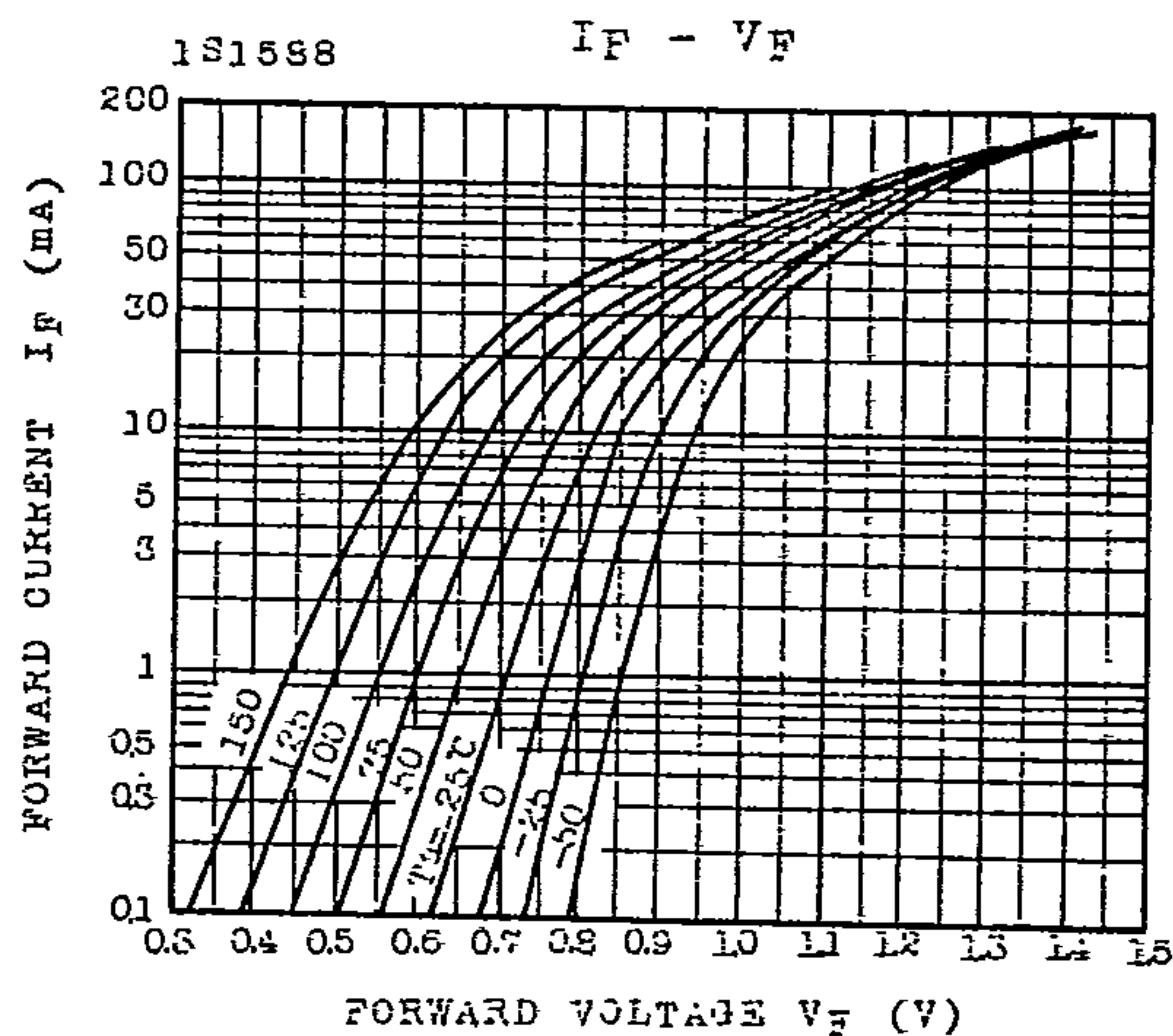
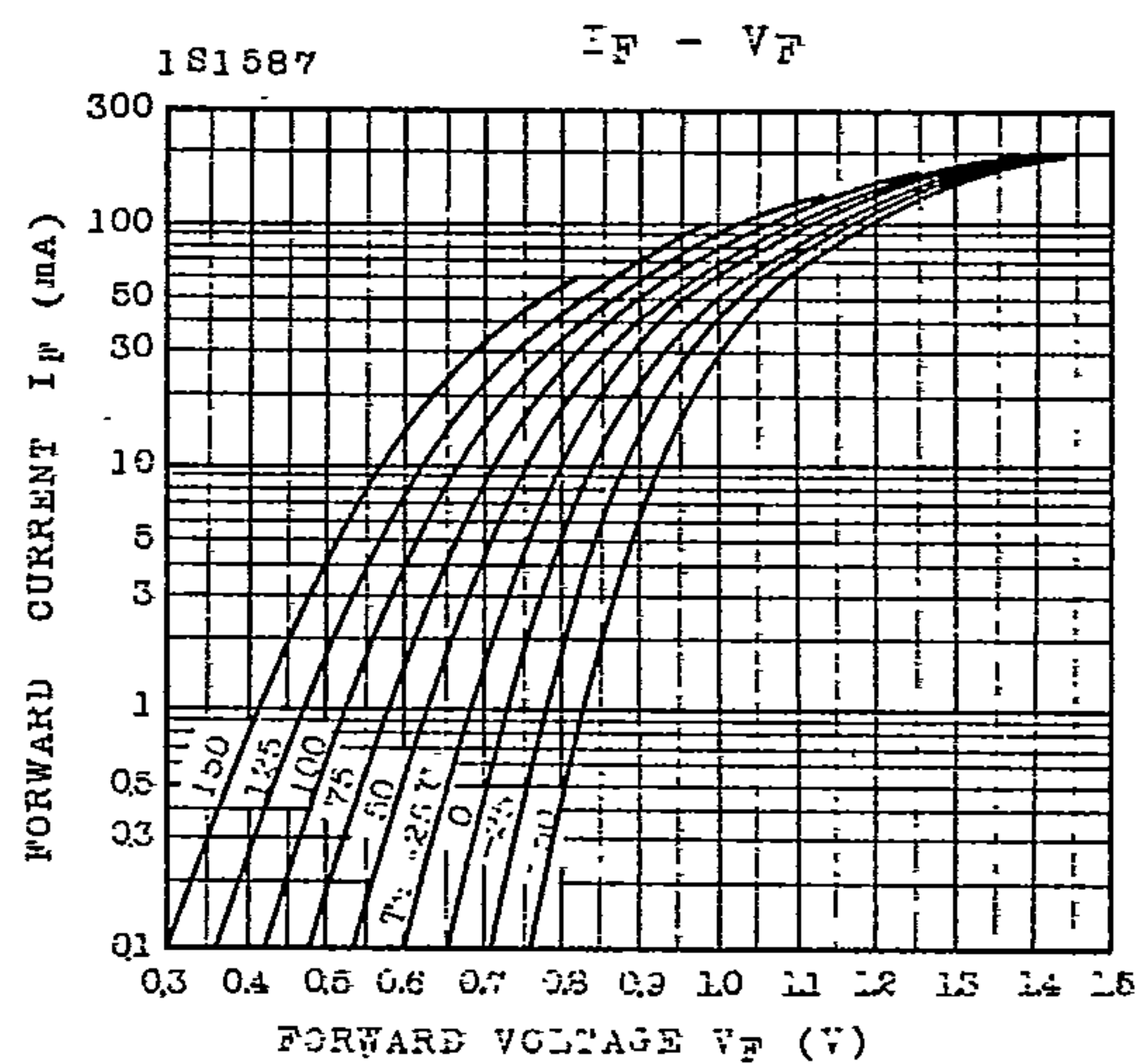
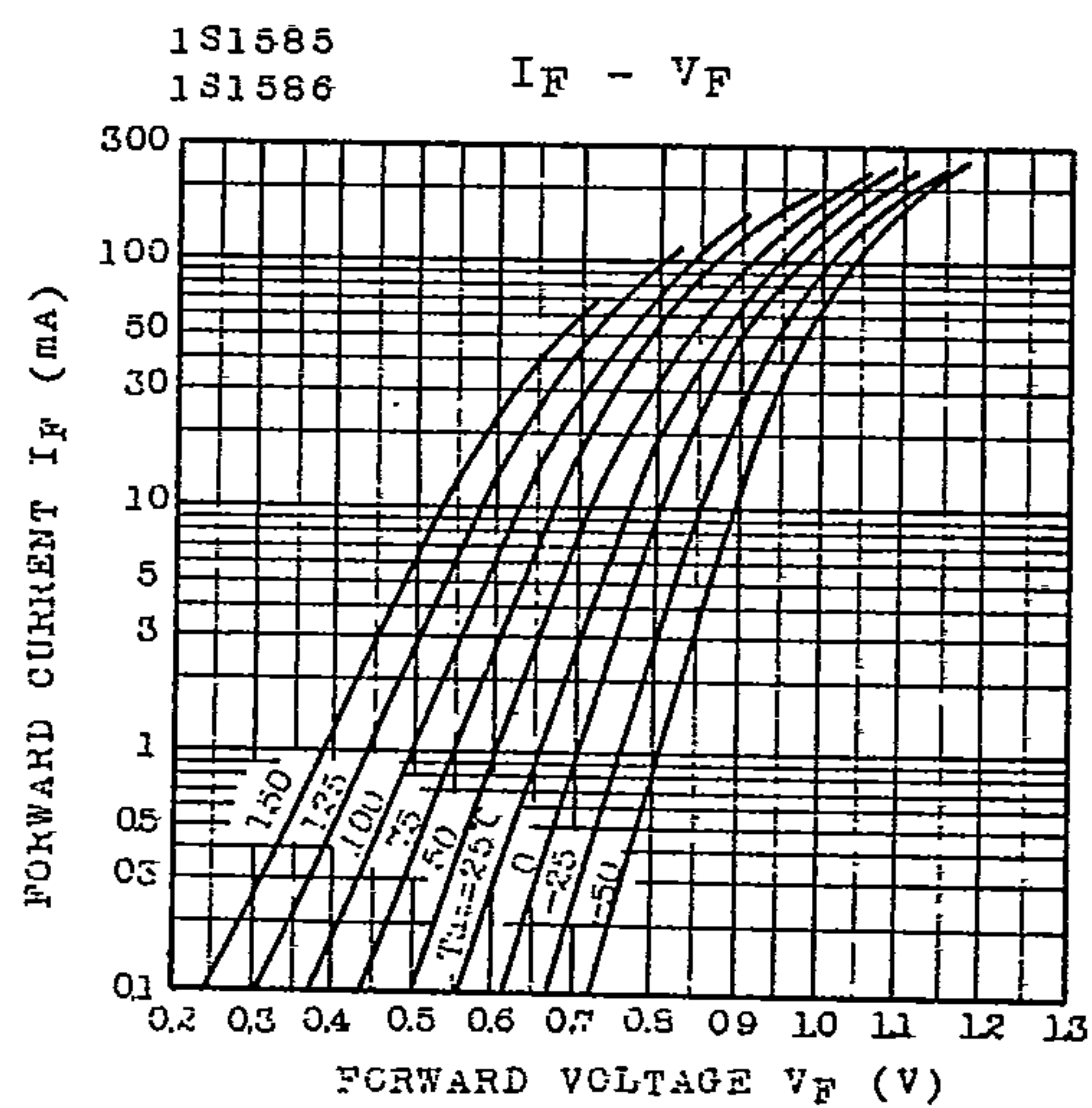
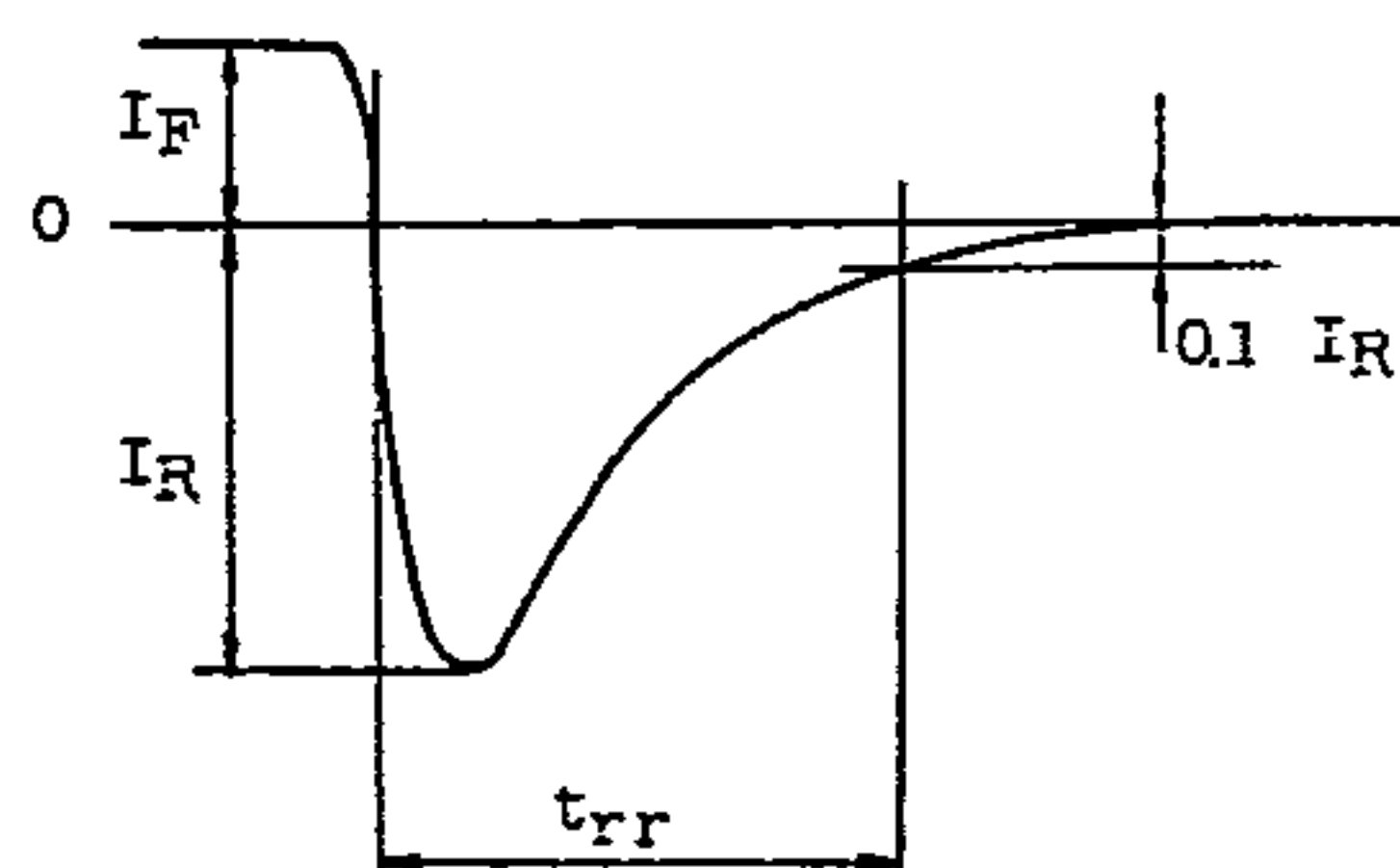
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Fig. t_{rr} TEST CIRCUIT

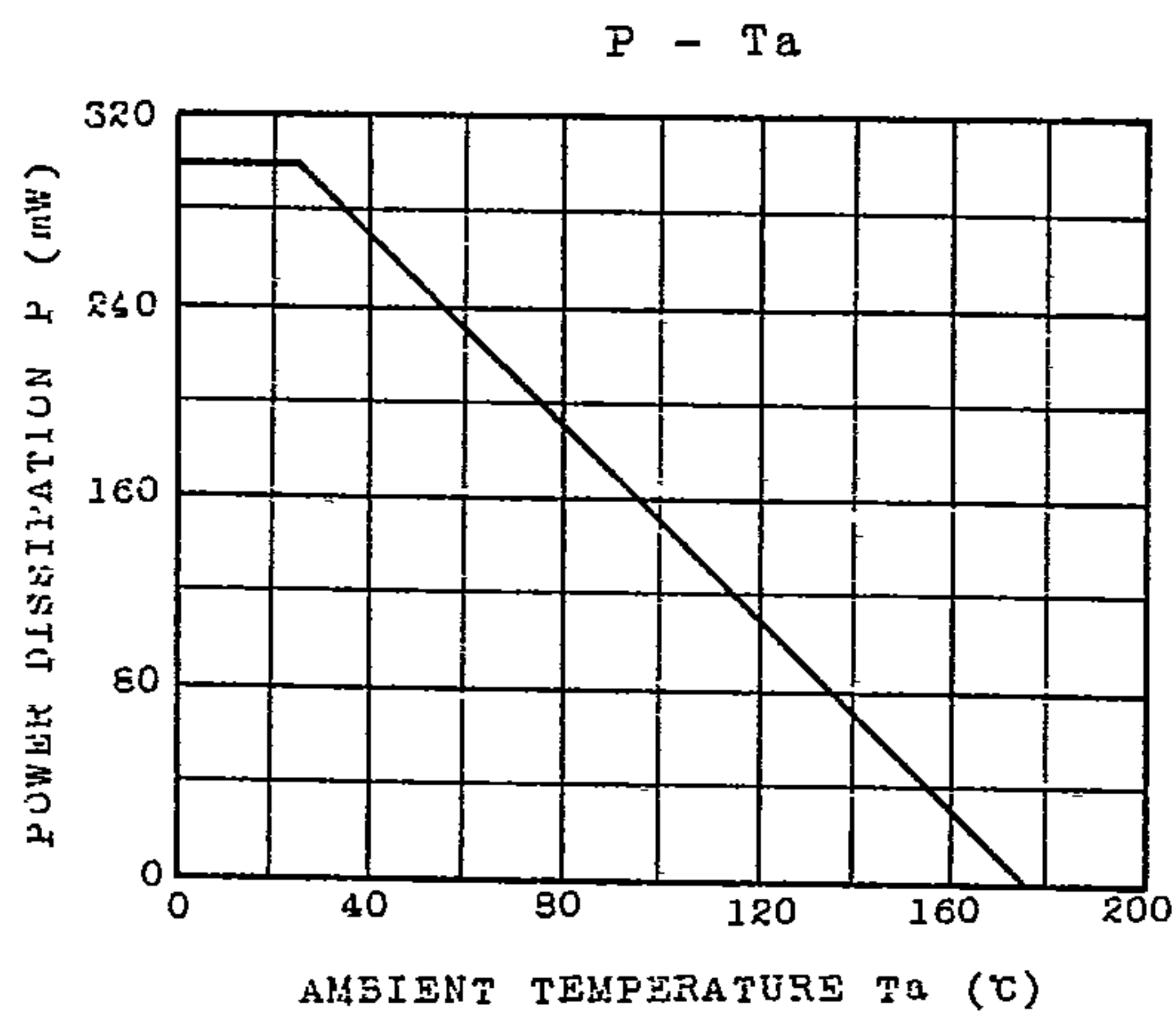
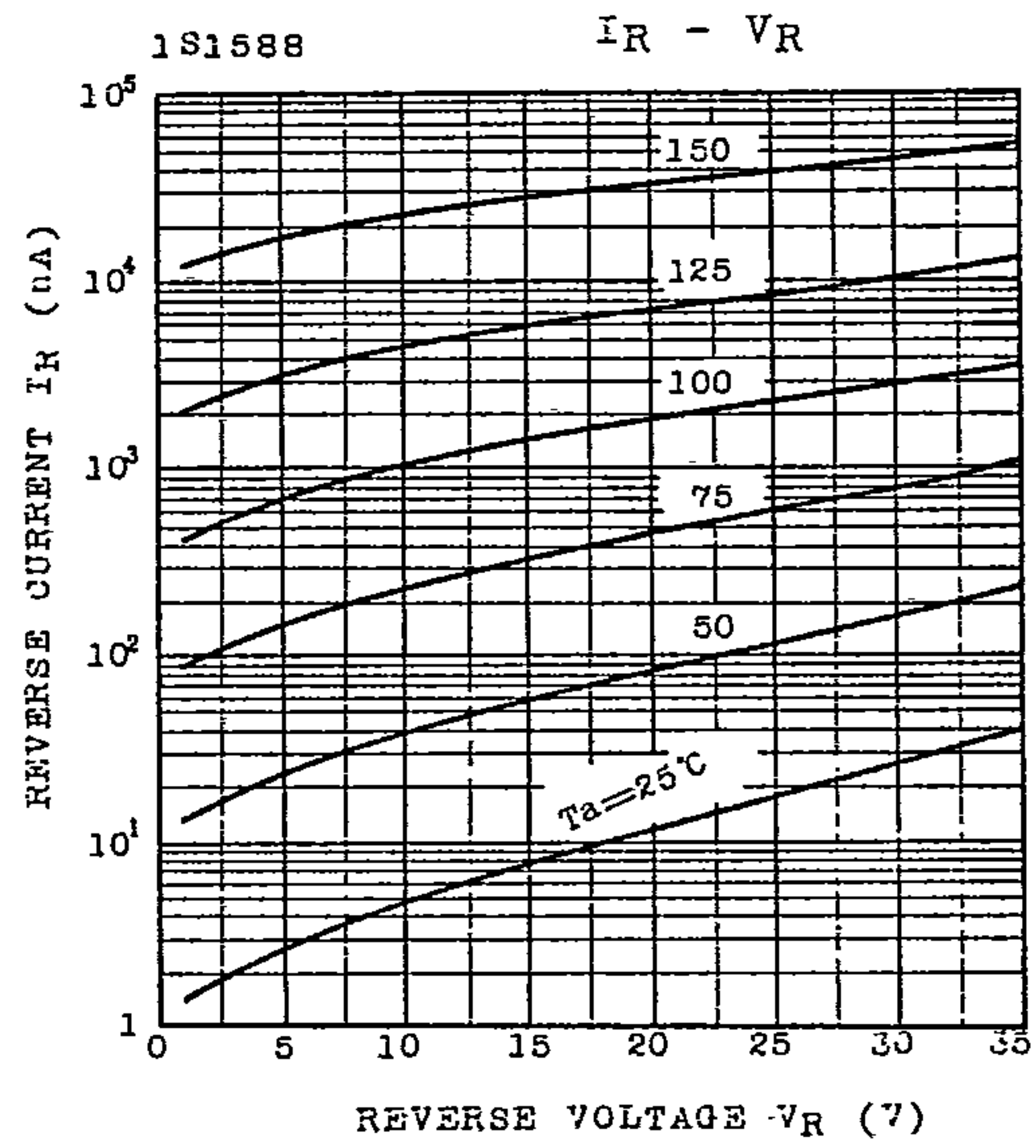
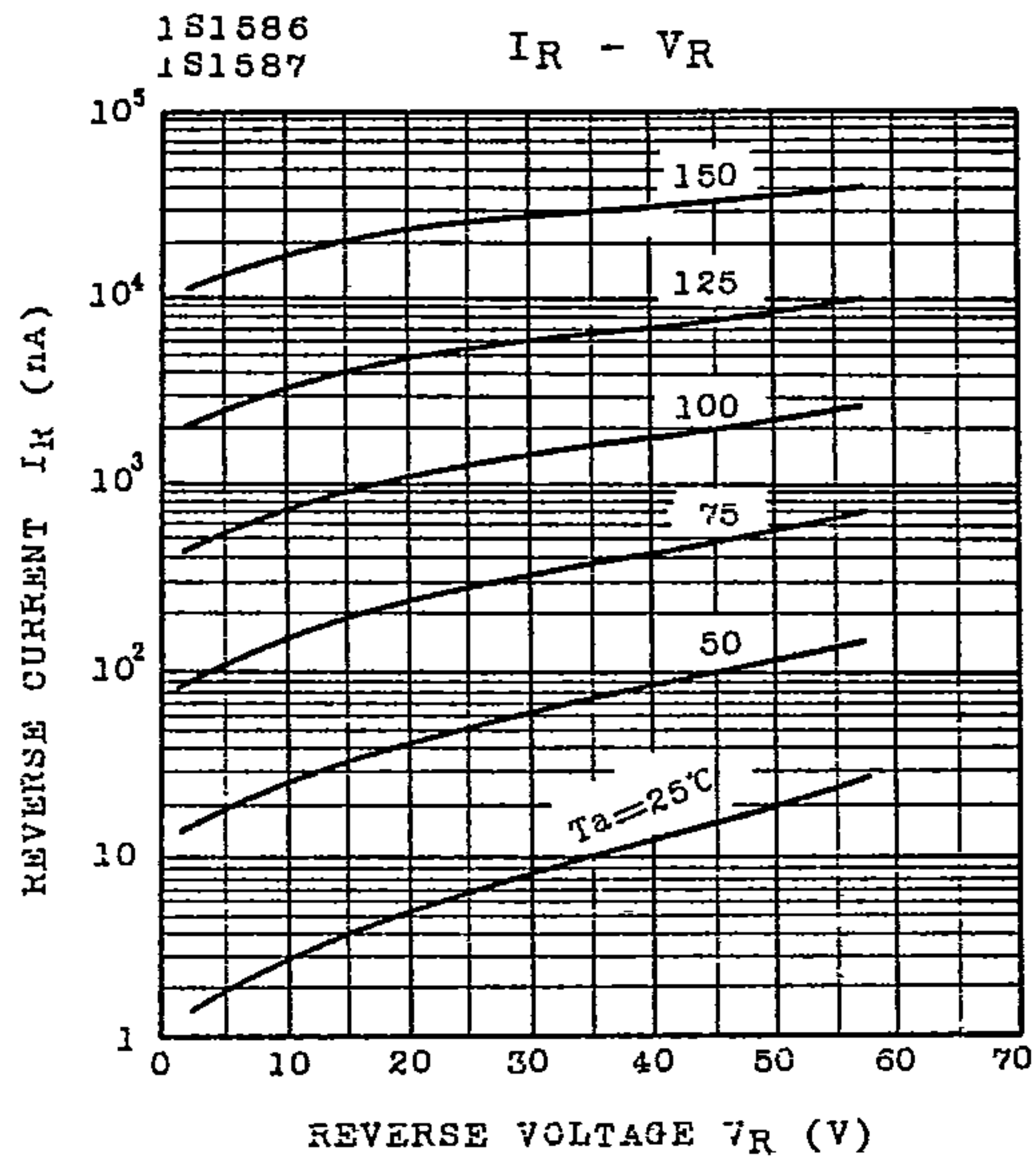
INPUT WAVEFORM



OUTPUT WAVEFORM



1S1585~1S1588



TOSHIBA CORPORATION