

1S1585~1S1588

Silicon Epitaxial Planar Type
Diode

ULTRA HIGH SPEED SWITCHING APPLICATIONS.

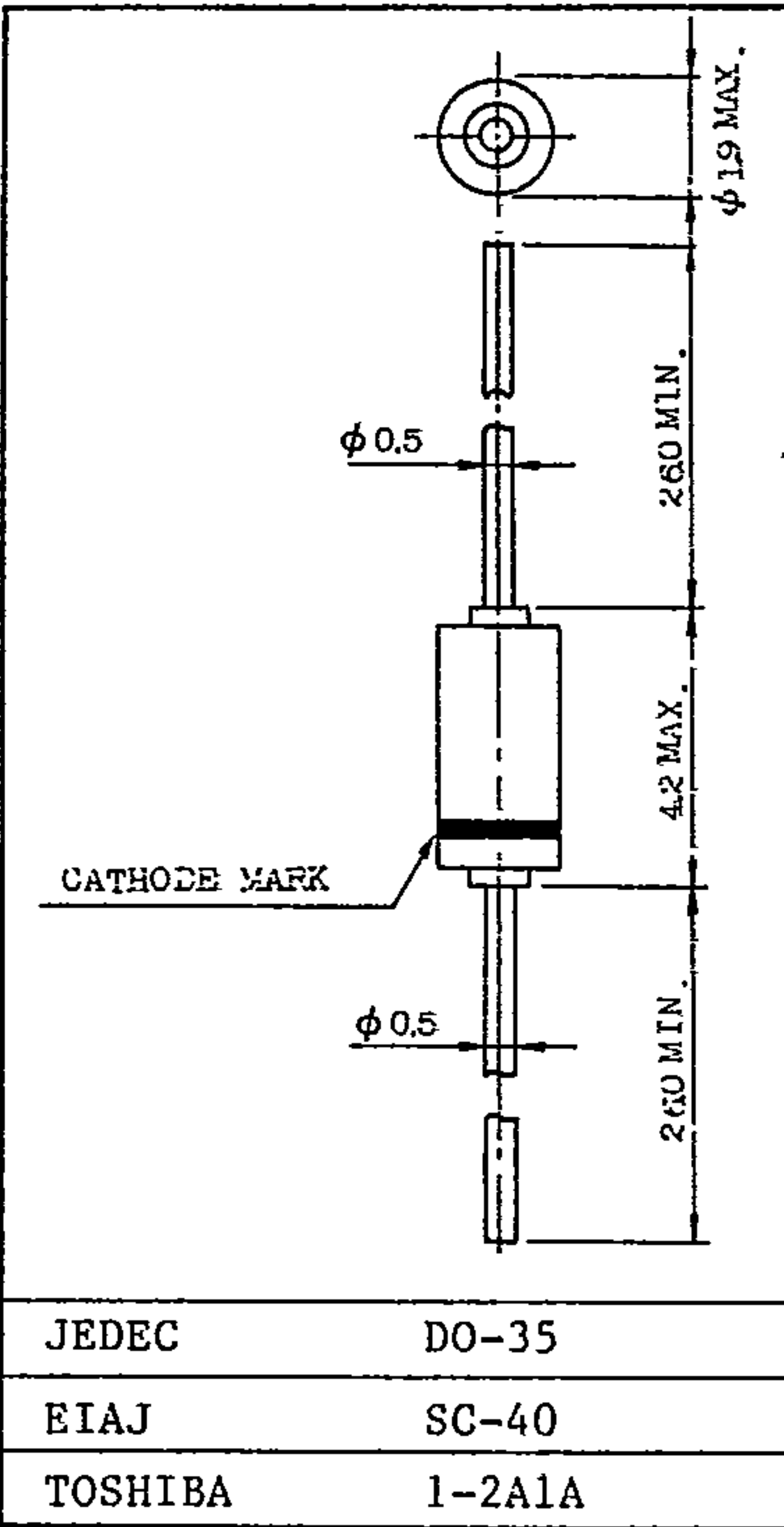
FEATURES:

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

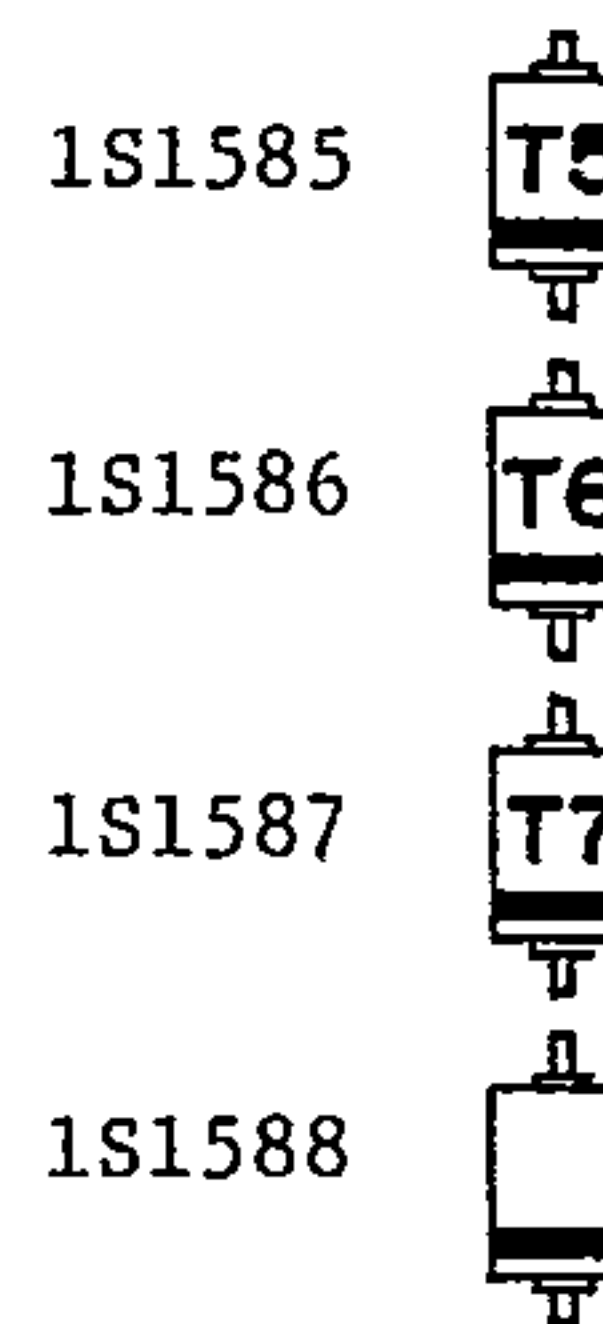
CHARACTERISTIC		SYMBOL	RATING	UNIT
Maximum (Peak) Reverse Voltage	1S1585	V _{RM}	90	V
	1S1586 1S1587		55	
	1S1588		35	
Reverse Voltage	1S1585	V _R	80	V
	1S1586 1S1587		50	
	1S1588		30	
Maximum (Peak) Forward Current	1S1585 1S1586	I _{FM}	480	mA
	1S1587		400	
	1S1588		360	
Average Forward Current	1S1585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

Unit in mm



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

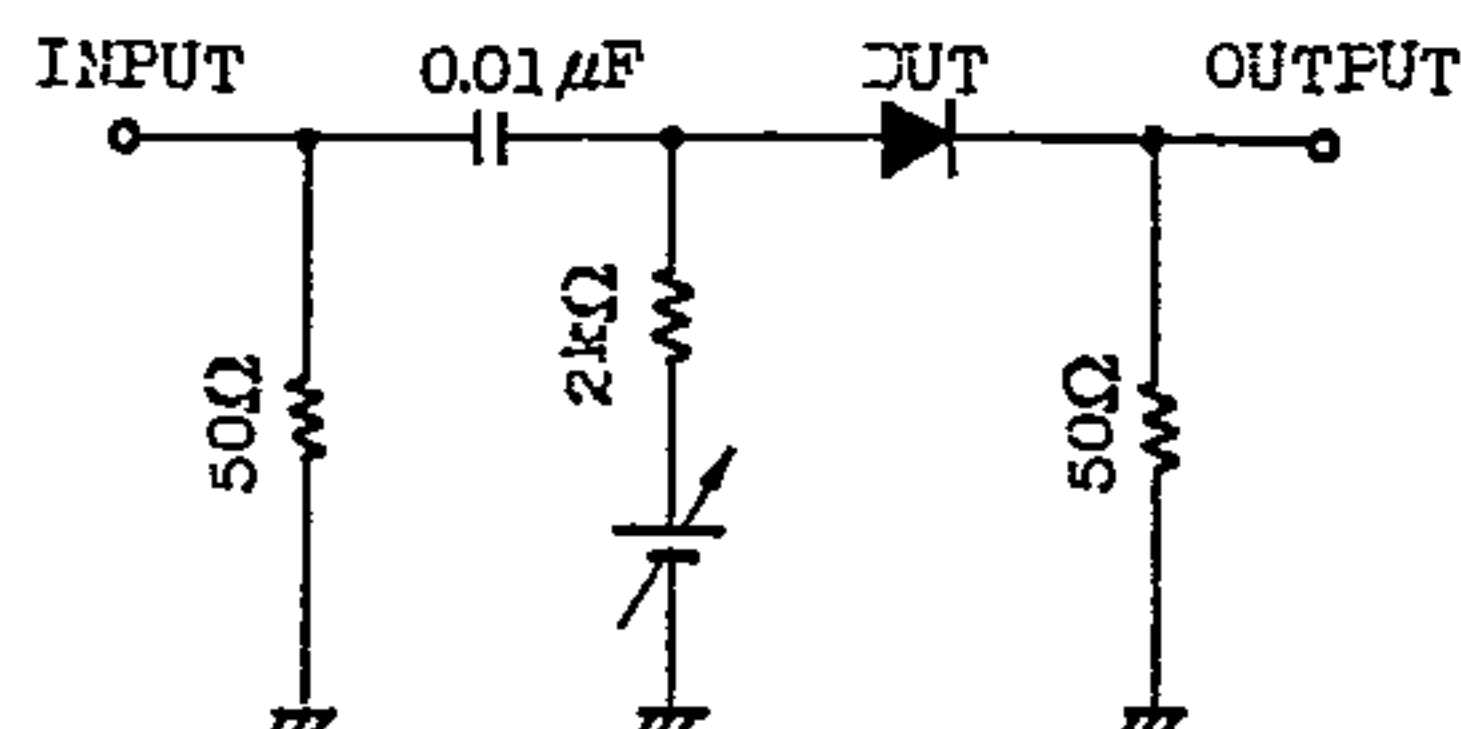
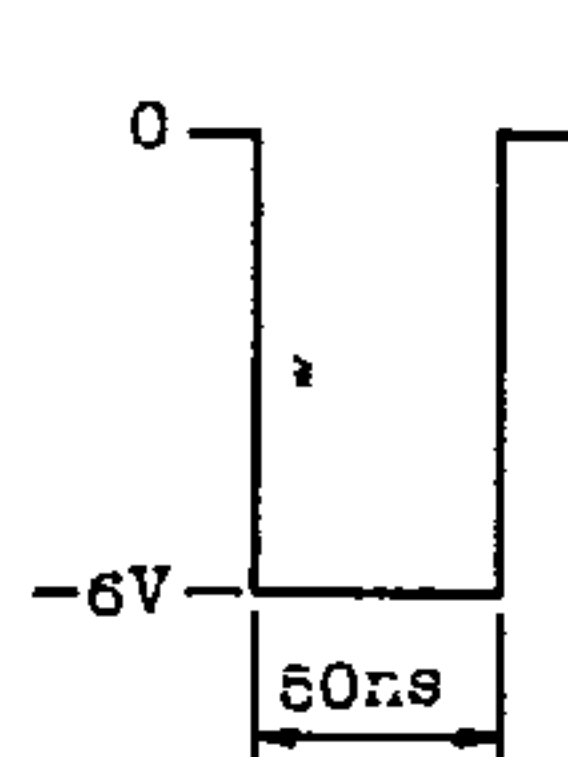
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	1S1585	V_F	$I_F = 100\text{mA}$	-	-	1.0	V
	1S1586			-	-	1.2	
	1S1587			-	-	1.3	
	1S1588			-	-	1.3	
Reverse Current	1S1585	I_R	$V_R = 80\text{V}$	-	-	0.5	μA
	1S1586		$V_R = 50\text{V}$				
	1S1587		$V_R = 50\text{V}$				
	1S1588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

TOSHIBA CORPORATION

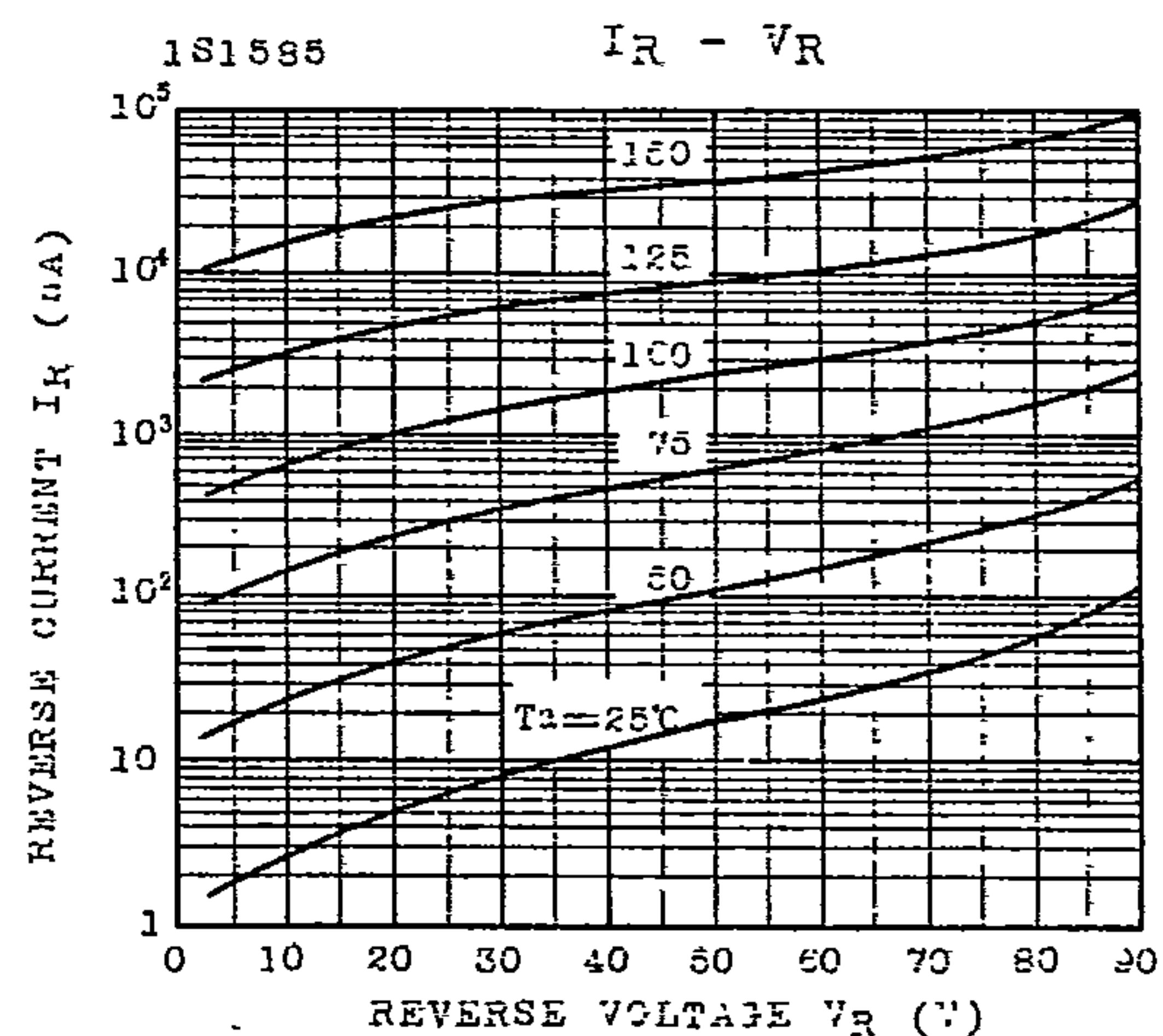
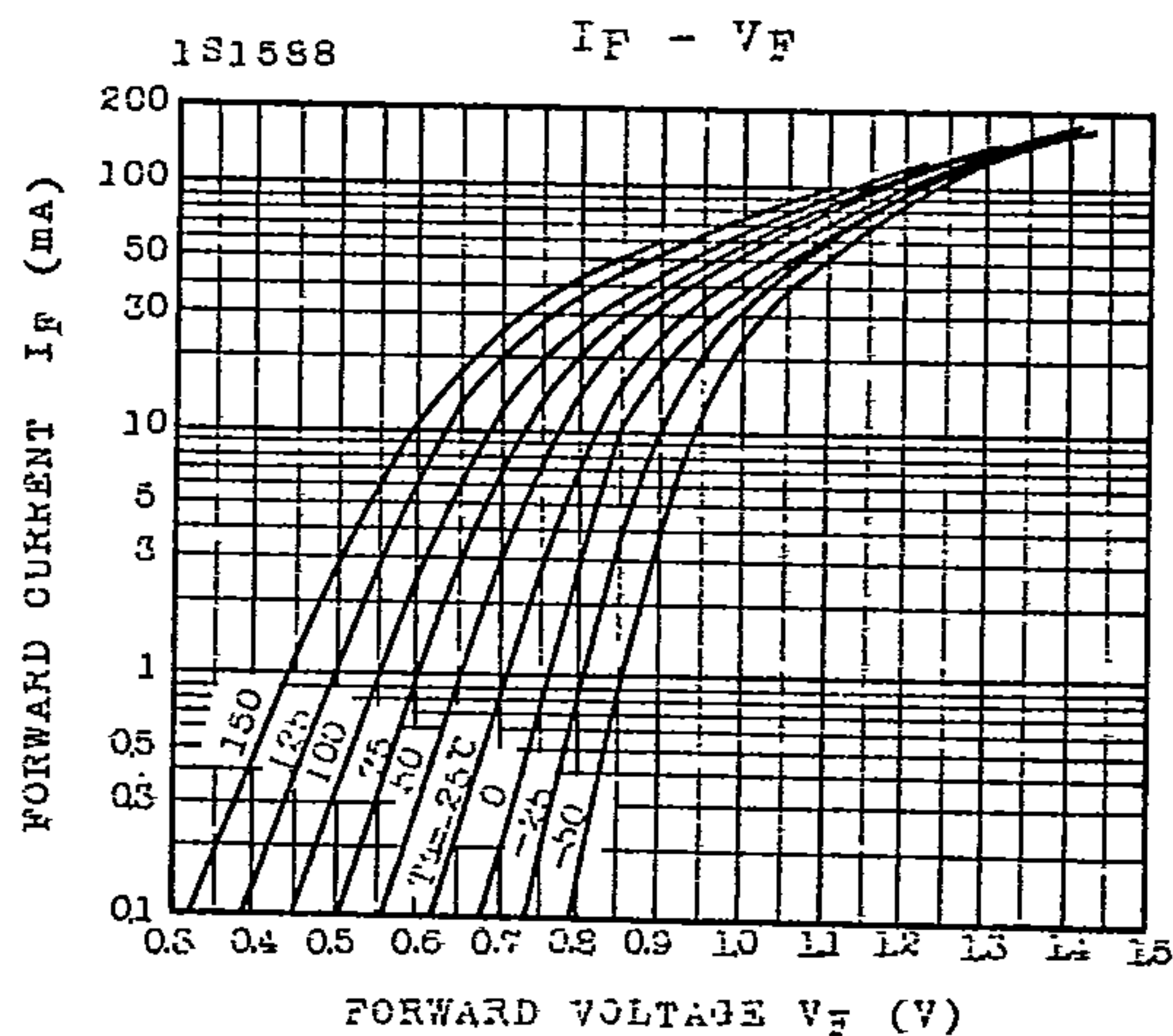
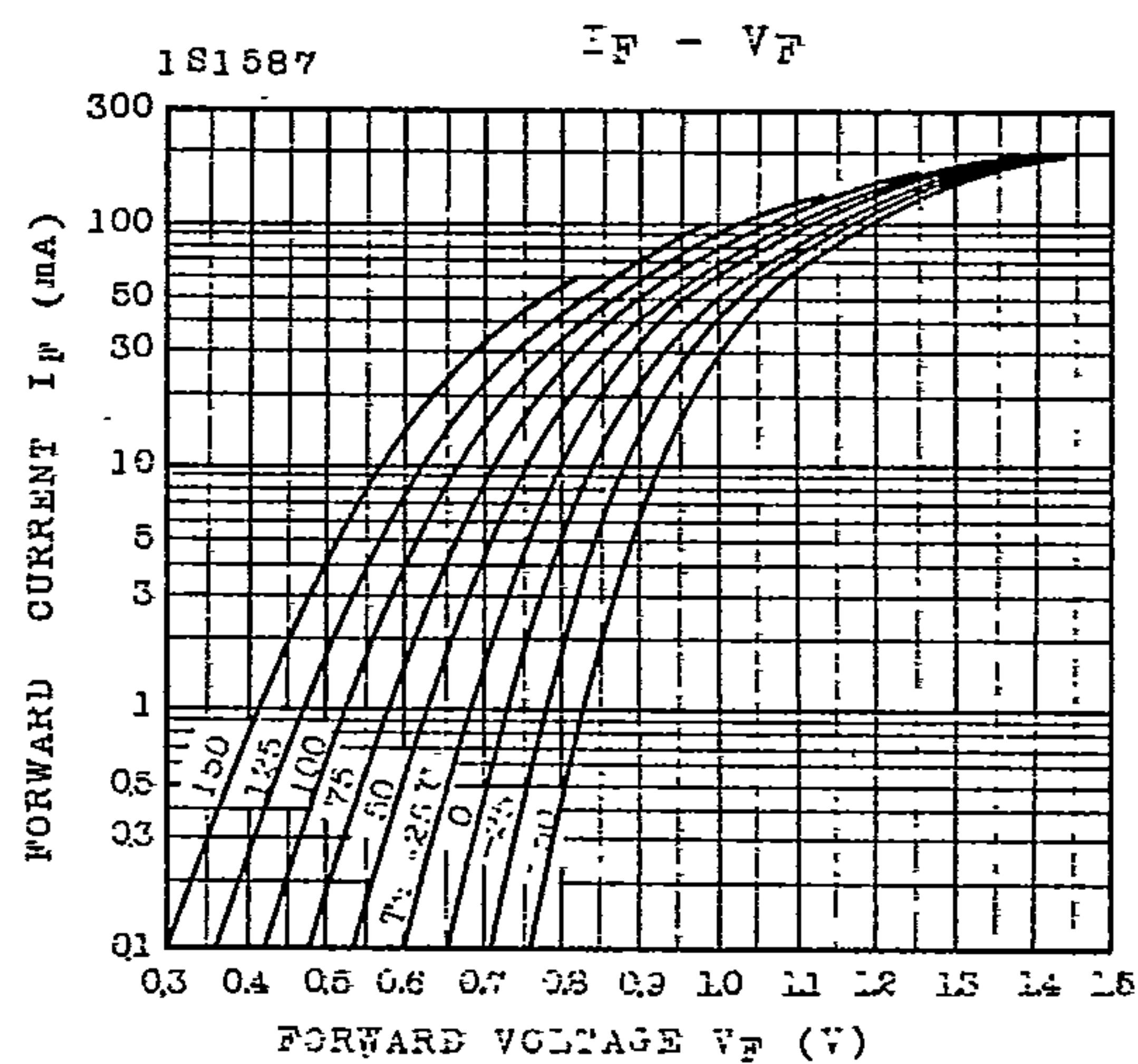
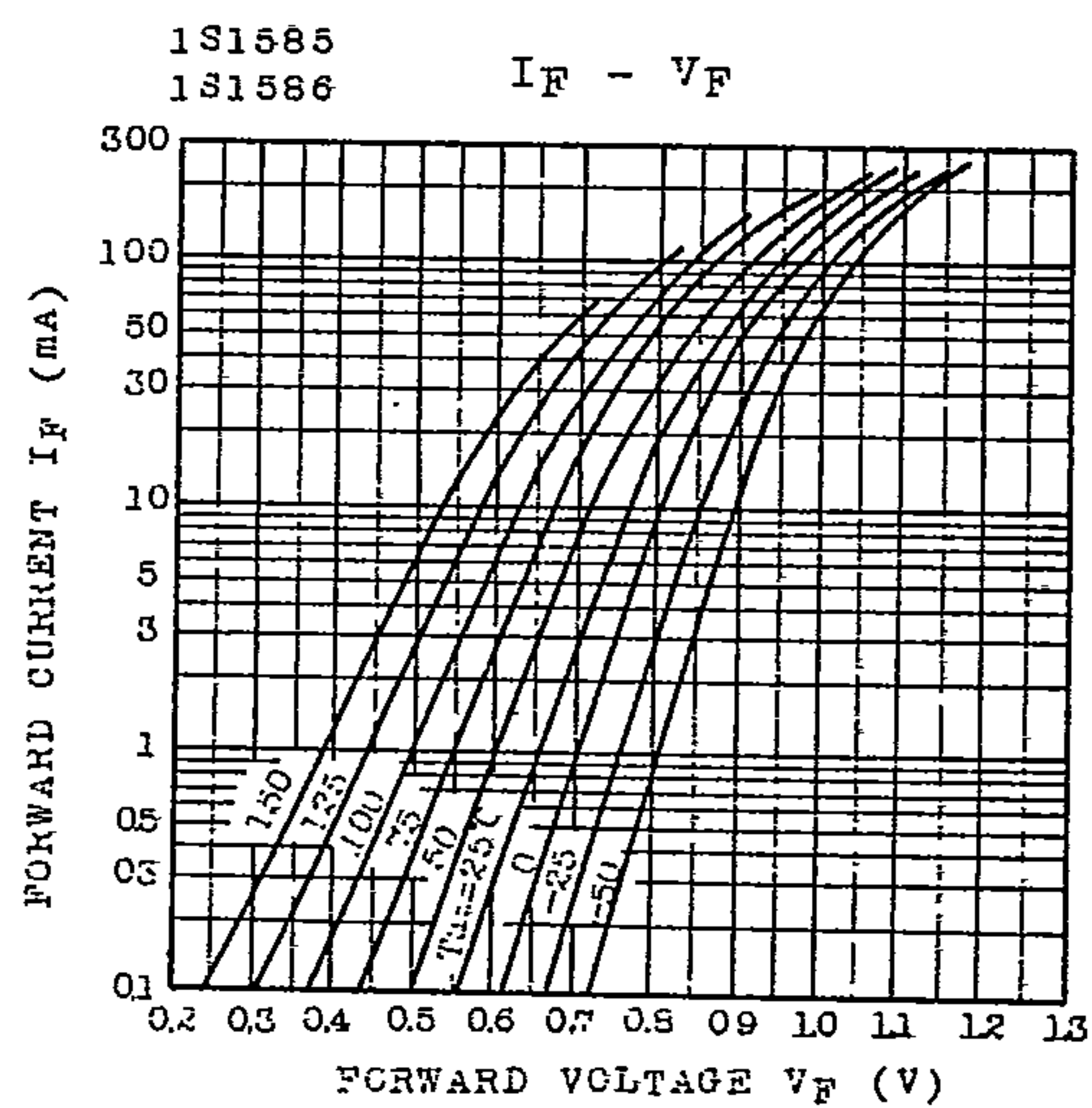
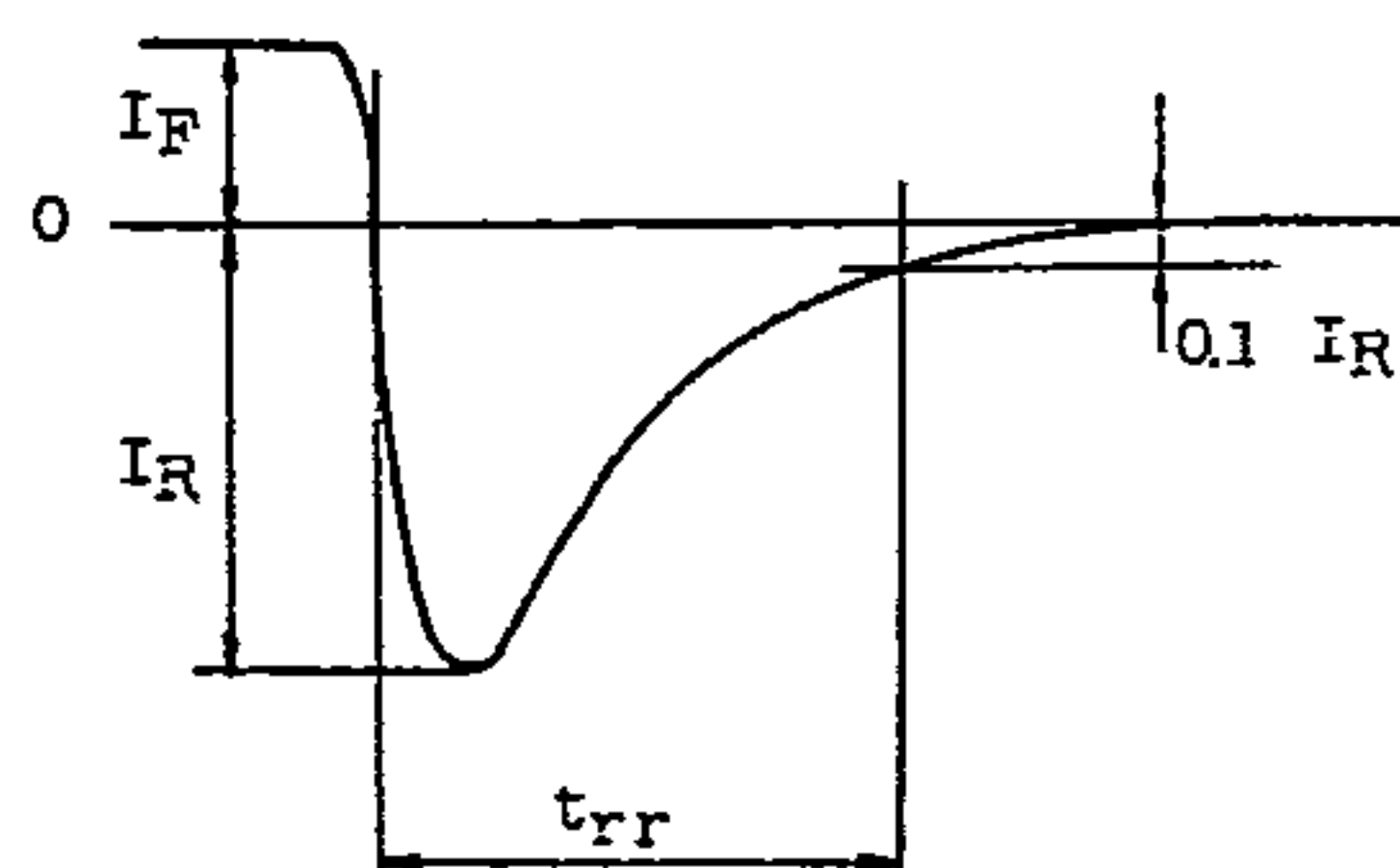
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Fig. t_{rr} TEST CIRCUIT

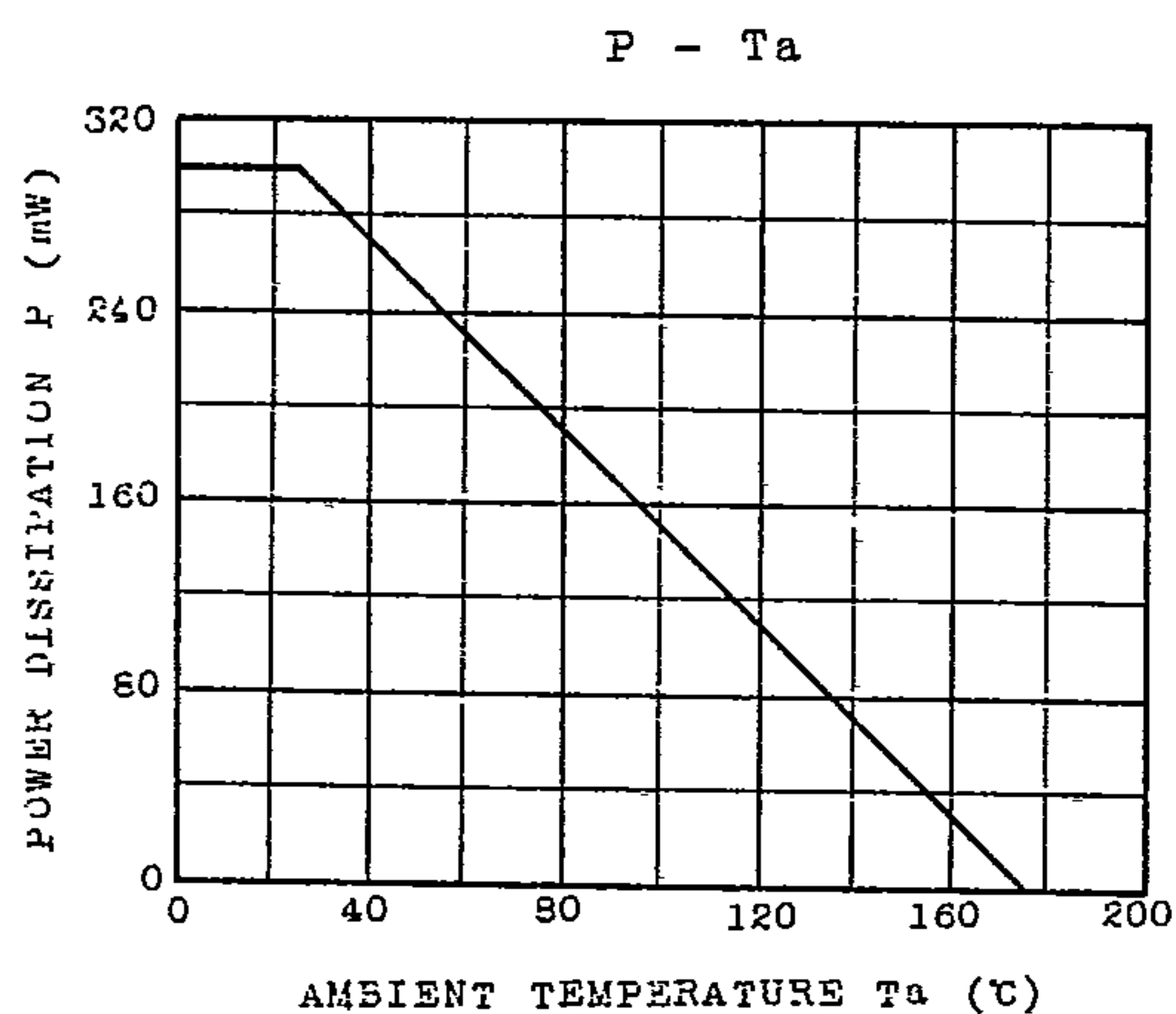
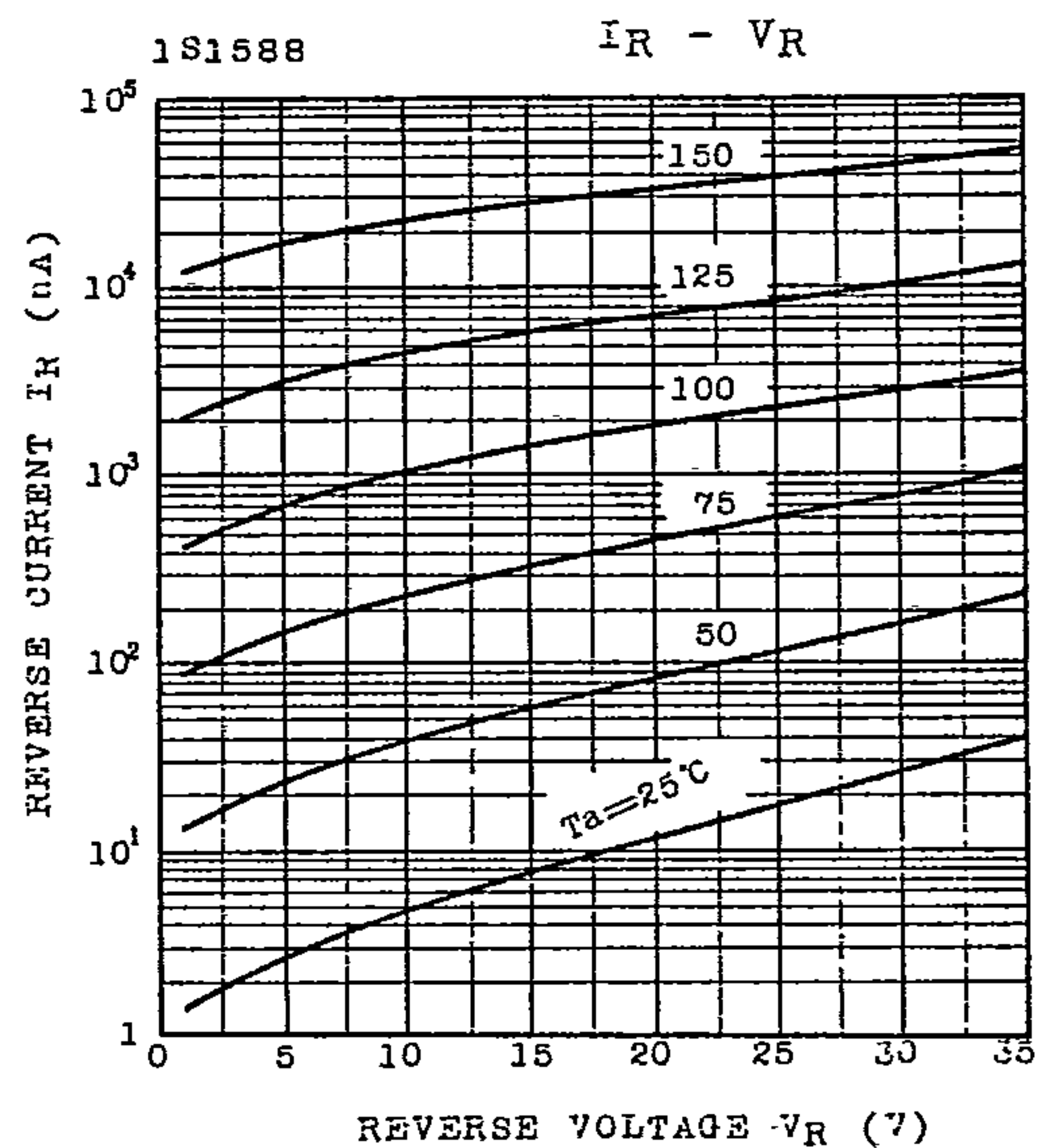
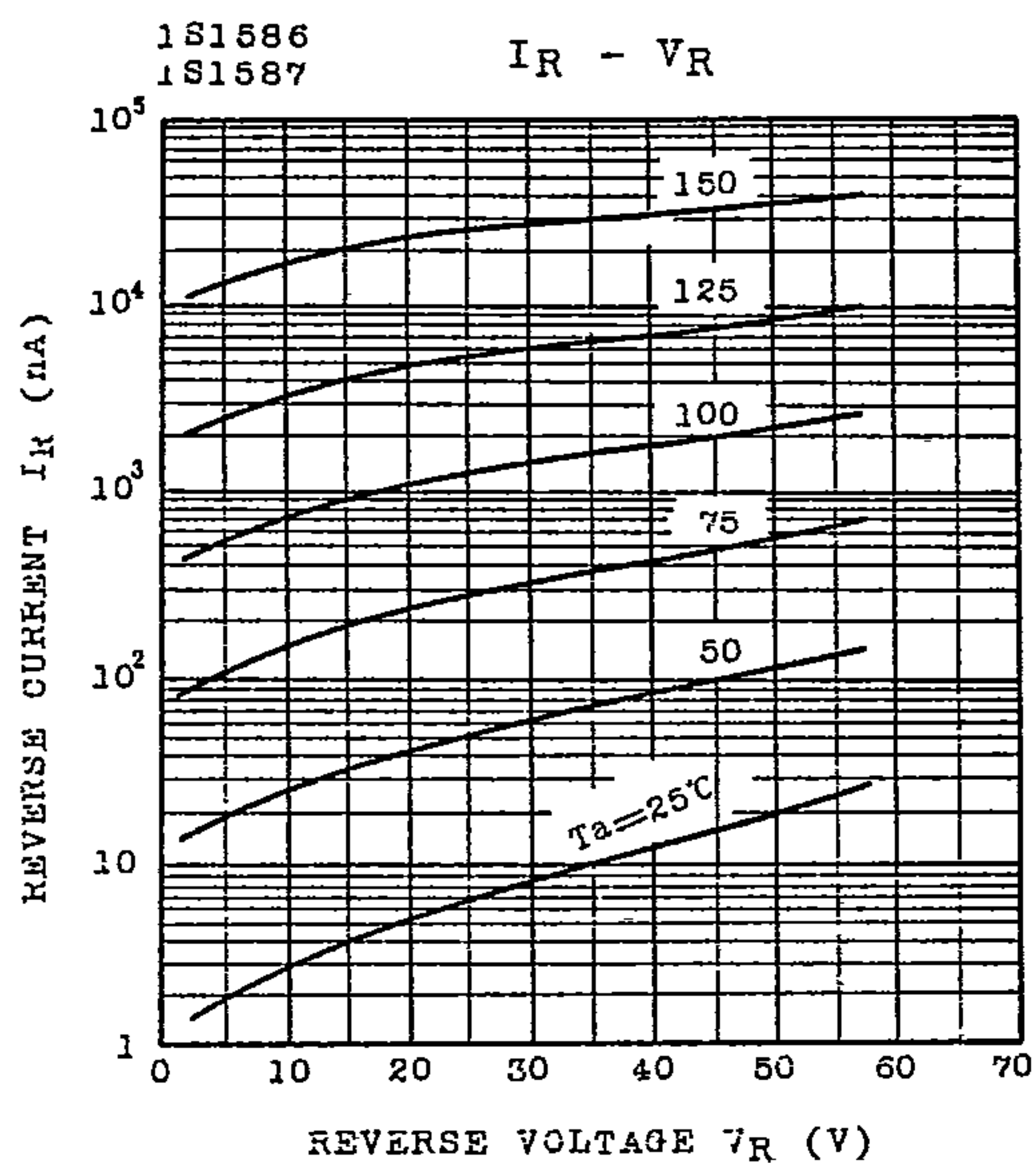
INPUT WAVEFORM



OUTPUT WAVEFORM



1S1585~1S1588



TOSHIBA CORPORATION