

SANYO	No.1056C	2SA1256
		PNP Epitaxial Planar Silicon Transistor

High-Frequency Amp Applications

Applications

- Ideally suited for use in FM RF amplifiers, mixers, oscillators, converters, and IF amplifiers.

Features

- High f_T (230MHz typ), and small C_{re} (1.1pF typ).
- Small NF (2.5dB typ).

Absolute Maximum Ratings at $T_a = 25^\circ C$

			unit
Collector-to-Base Voltage	V_{CB0}	-30	V
Collector-to-Emitter Voltage	V_{CE0}	-20	V
Emitter-to-Base Voltage	V_{EB0}	-5	V
Collector Current	I_C	-30	mA
Collector Dissipation	P_C	150	W
Junction Temperature	T_j	125	$^\circ C$
Storage Temperature	T_{stg}	-55 to +125	$^\circ C$

Electrical Characteristics at $T_a = 25^\circ C$

			min	typ	max	unit
Collector Cutoff Current	I_{CB0}	$V_{CB} = -10V, I_E = 0$			-0.1	μA
Emitter Cutoff Current	I_{EB0}	$V_{EB} = -4V, I_C = 0$			-0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = -6V, I_C = -1mA$	60*		270*	
Gain-Bandwidth Product	f_T	$V_{CE} = -6V, I_C = -1mA$	150	230		MHz
Reverse Transfer Capacitance	C_{re}	$V_{CB} = -6V, f = 1MHz$		1.1	1.7	pF
Base-to-Collector Time Constant	$r_{bb'} C_c$	$V_{CE} = -6V, I_C = -1mA, f = 31.9MHz$		11	20	ps
Noise Figure	NF	$V_{CE} = -6V, I_C = -1mA, f = 100MHz$		2.5		dB
Voltage Gain	PG	$V_{CE} = -6V, I_C = -1mA, f = 100MHz$		22		dB

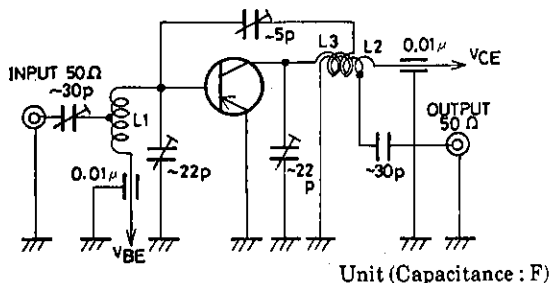
*: The 2SA1256 is classified by 1mA h_{FE} as follows :

60	E3	120	90	E4	180	135	E5	180
----	----	-----	----	----	-----	-----	----	-----

Note) Marking : E

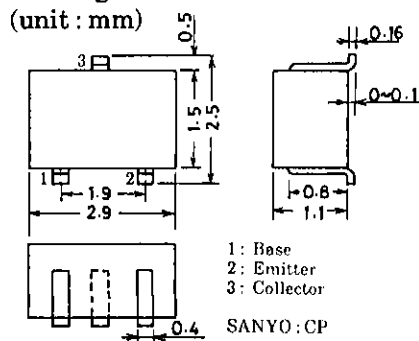
h_{FE} rank : 3, 4, 5

NF, PG Test Circuit



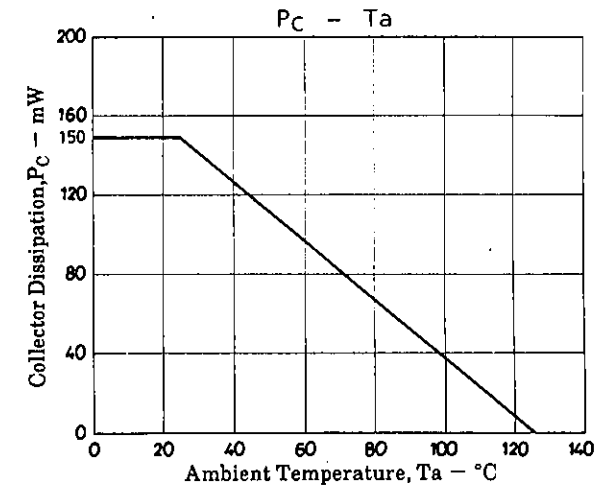
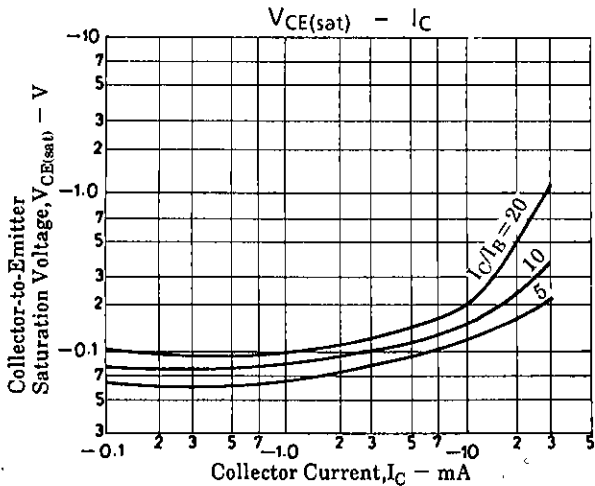
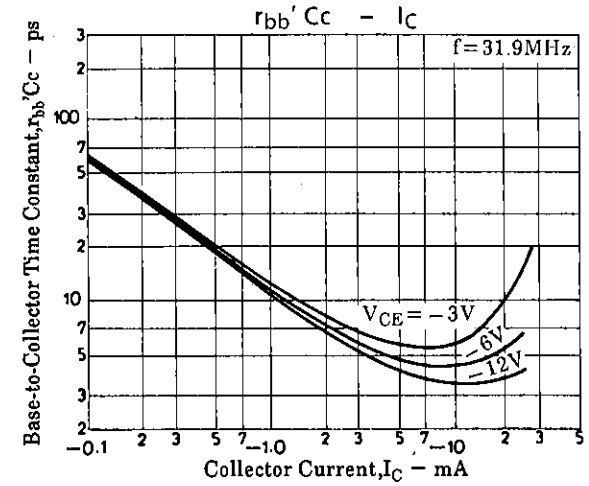
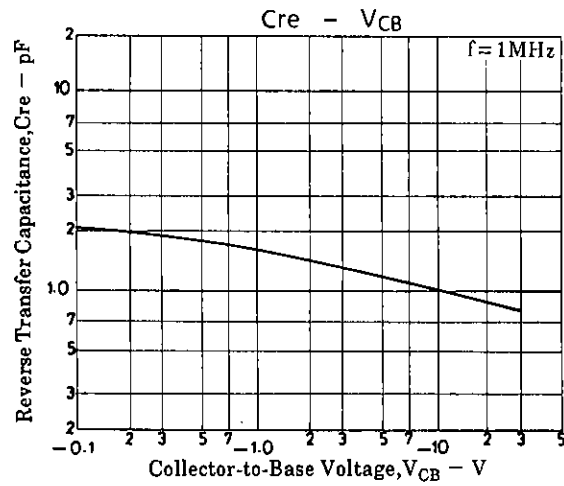
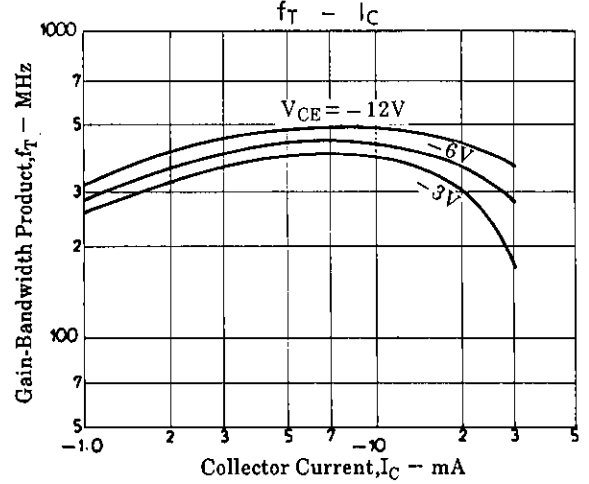
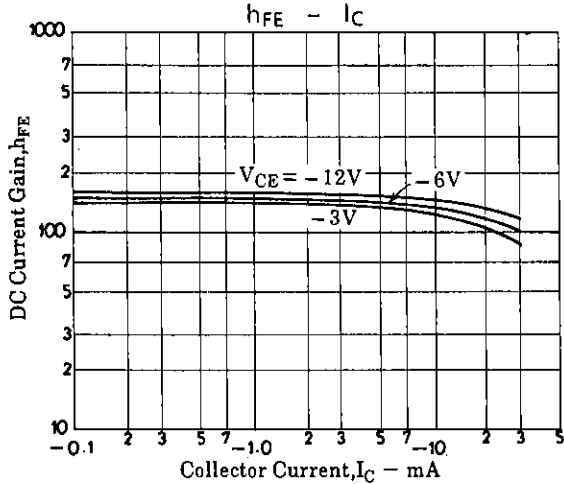
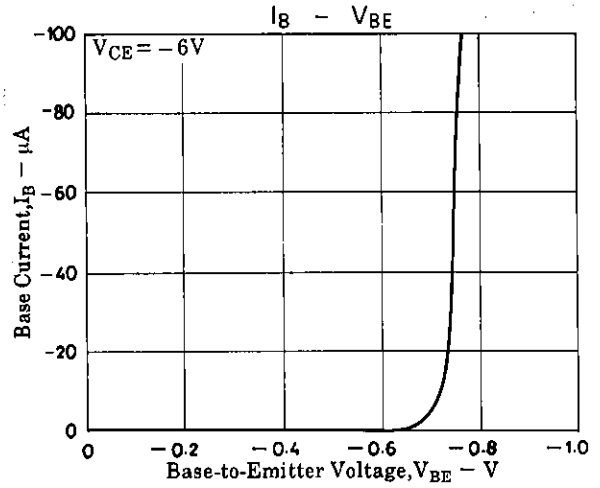
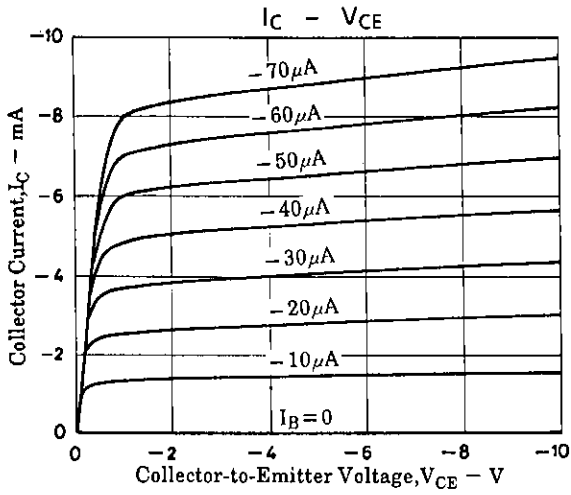
- L1 : 1mm ϕ plated wire 10mm ϕ 5T, tap : 2T from V_{BE} side
- L2 : 1mm ϕ plated wire 10mm ϕ 7T, tap : 1T from V_{CE} side
- L3 : 1mm ϕ enamel wire 10mm ϕ 3T

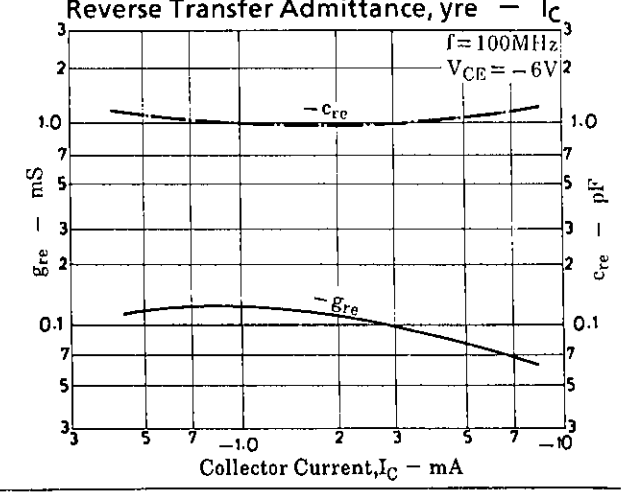
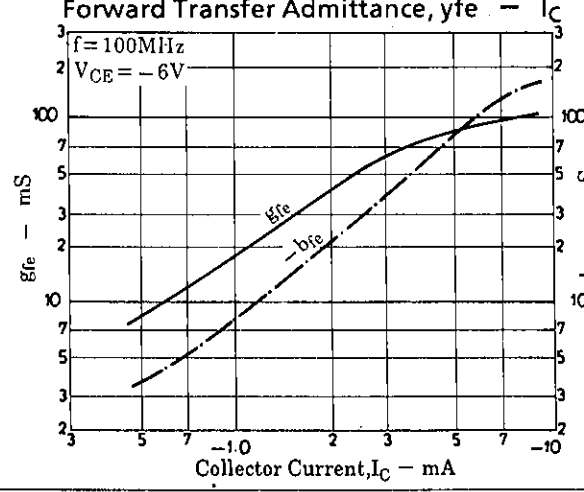
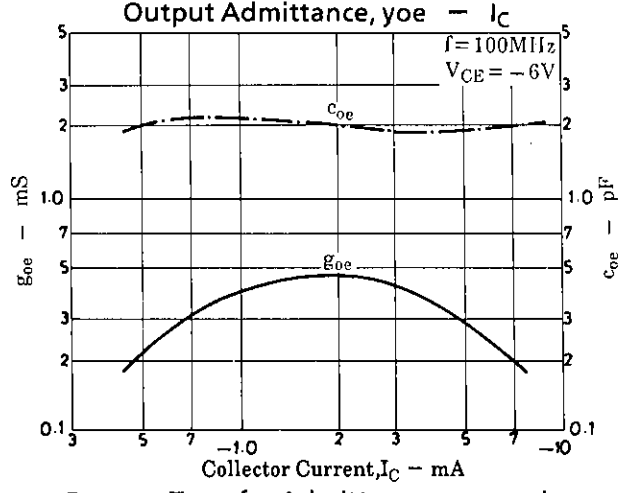
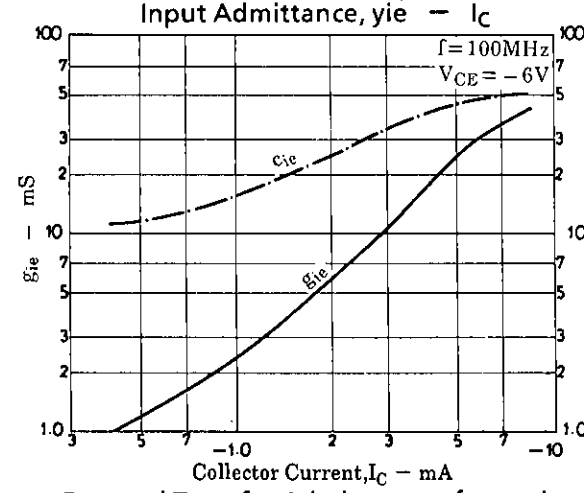
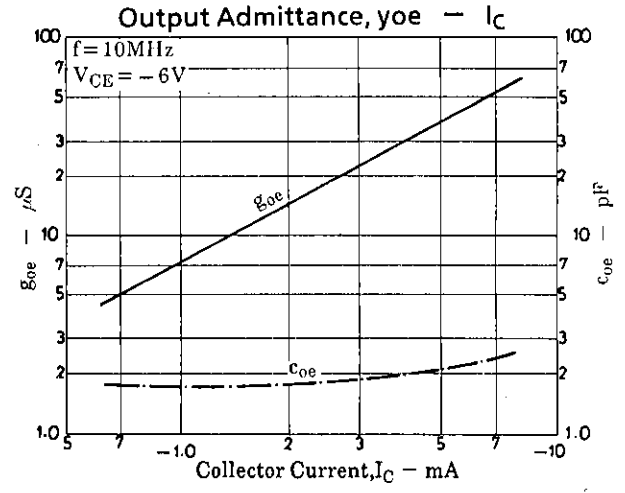
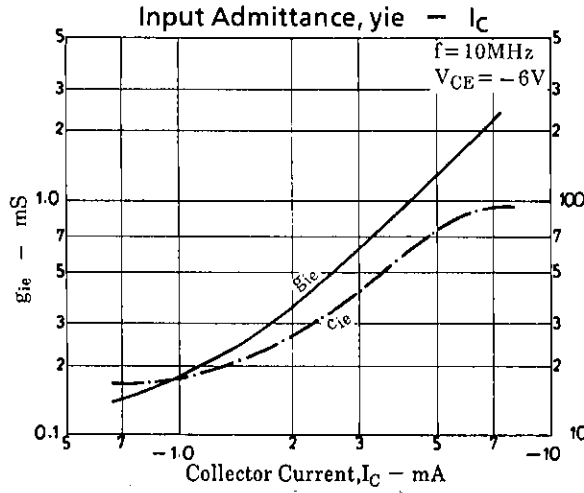
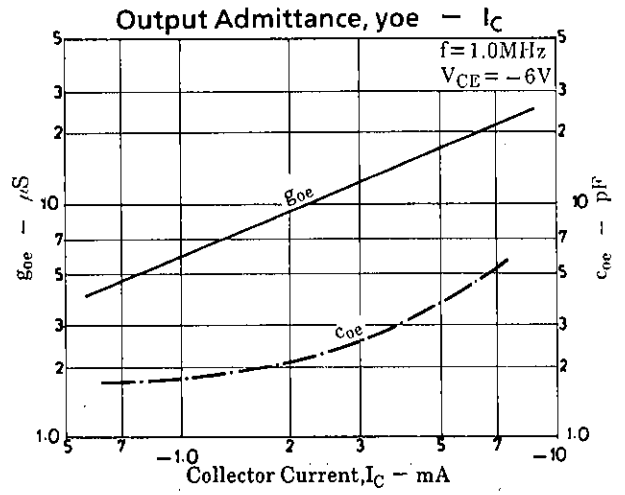
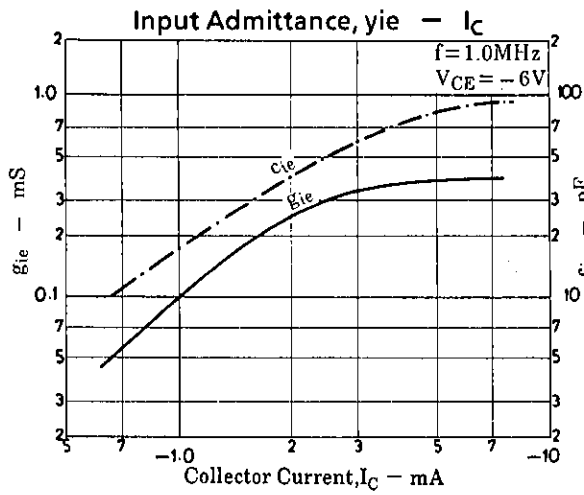
Package Dimensions 2018B

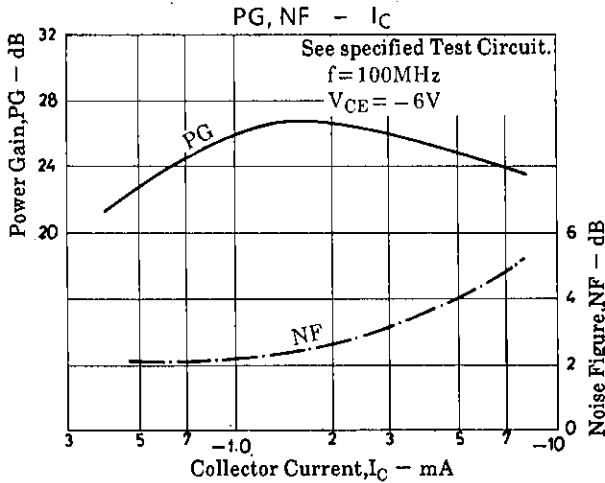
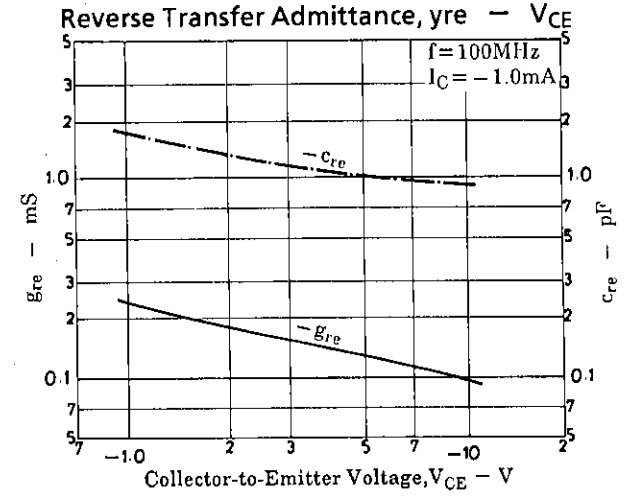
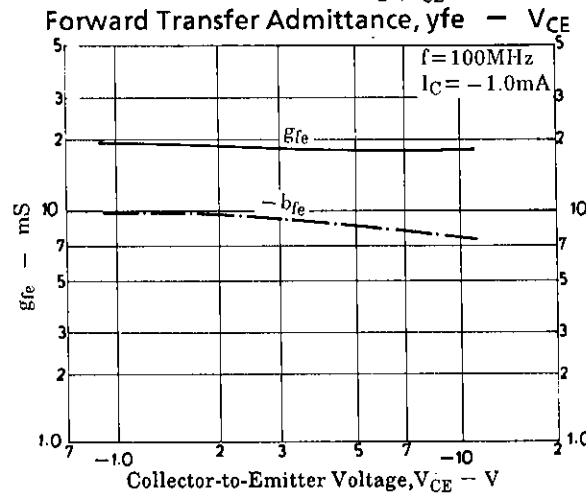
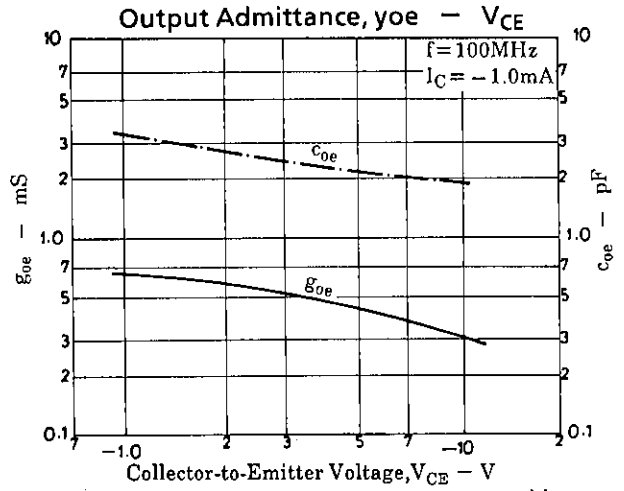
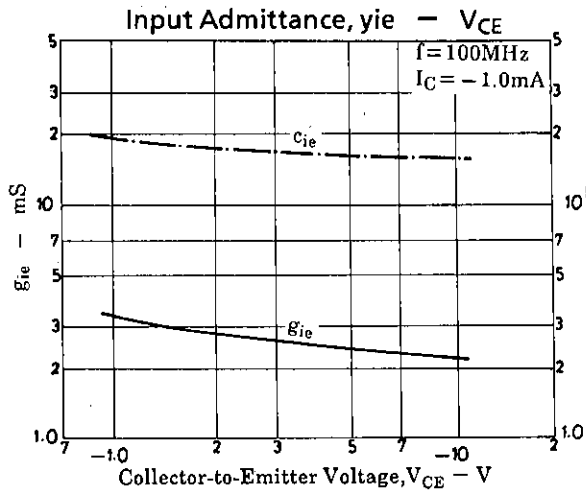


SANYO Electric Co., Ltd. Semiconductor Business Headquarters

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN







■ No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.

■ Anyone purchasing any products described or contained herein for an above-mentioned use shall:

- ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use:
- ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.

■ Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.

This catalog provides information as of April, 1996. Specifications and information herein are subject to change without notice.