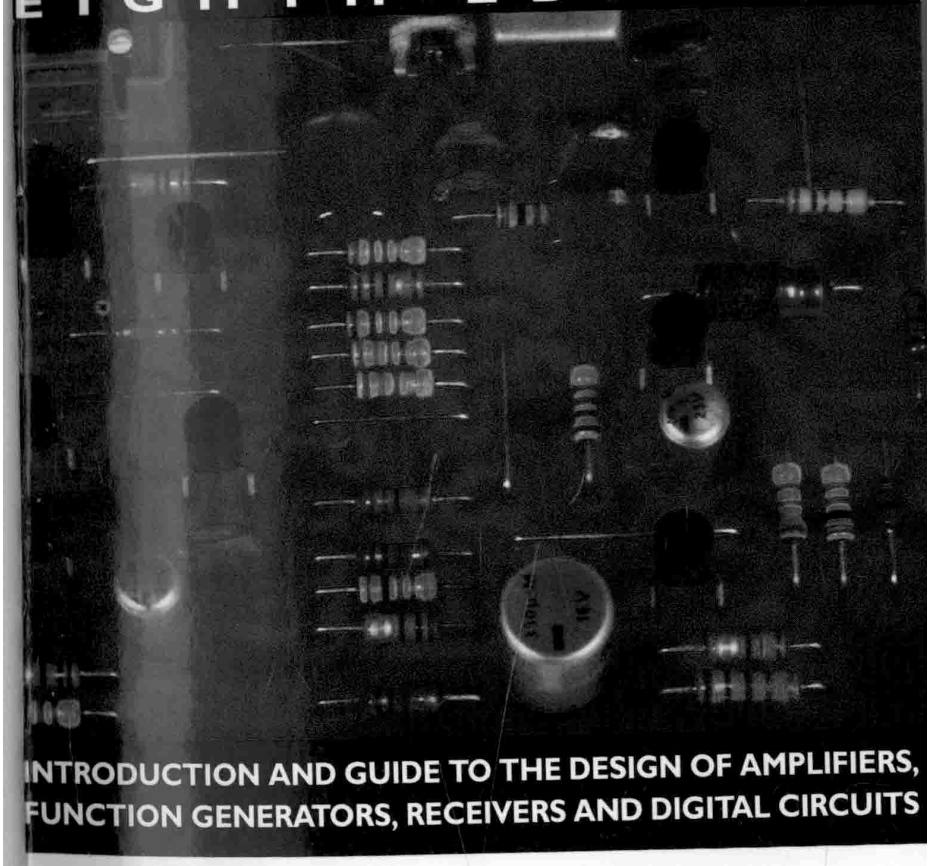
PRINCIPLES OF TRANSISTOR CIRCUITS

EIGHTH EDITION



INTRODUCTION AND GUIDE TO THE DESIGN OF AMPLIFIERS, FUNCTION GENERATORS, RECEIVERS AND DIGITAL CIRCUITS

S. W. AMOS

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

126

Principles of Transistor Circuits

EIGHTH EDITION

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

Principles of Transistor Circuits

EIGHTH EDITION

INTRODUCTION TO THE DESIGN OF
AMPLIFIERS, RECEIVERS AND DIGITAL CIRCUITS

S W AMOS, BSc, CEng, MIEE

formerly Head of Technical Publications Section,
Engineering Training Department,
British Broadcasting Corporation

BUTTERWORTH
HEINEMANN

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

Butterworth-Heinemann Ltd
Linacre House, Jordan Hill, Oxford OX2 8DP

A member of the Reed Elsevier group

OXFORD LONDON BOSTON
MUNICH NEW DELHI SINGAPORE SYDNEY
TOKYO TORONTO WELLINGTON

First published by Iliffe Books Ltd 1959
Second edition 1961
Third edition 1965
Fourth edition 1969
Fifth edition 1975
Sixth edition 1981
Seventh edition 1990
Eighth edition 1994

© S. W. Amos 1994

All rights reserved. No part of this publication
may be reproduced in any material form
(including photocopying or storing in any medium by electronic
means and whether or not transiently or incidentally
to some other use of this publication) without the
written permission of the copyright holder except
in accordance with the provisions of the Copyright,
Designs and Patents Act 1988 or under the terms of a
licence issued by the Copyright Licensing Agency Ltd,
90 Tottenham Court Road, London W1P 9HE, England.
Applications for the copyright holder's written permission
to reproduce any part of this publication should be addressed
to the publishers

British Library Cataloguing in Publication Data
Amos, S. W.
Principles of transistor circuits. – 8th ed.
1. Transistor circuits
2. Electronic circuit design
I. Title
621.3815'30422 TK7871.9
ISBN 0 7506 1999 6

TK7871.9
.A4
1994

Library of Congress Cataloguing in Publication Data
Amos, S. W. (Stanley William)
Principles of transistor circuits/S. W. Amos. – 8th ed.
p. cm.
ISBN 0 7506 1999 6
1. Transistor circuits. I. Title
TK7871.9A45 1994
621.381'528—dc20 93–50682

Printed in England by Clays Ltd, St Ives plc

M.I.T. LIBRARIES
SEP 1 2 1994
RECEIVED

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

94-2066

Contents

Preface to the Eighth Edition	vi
1 Semiconductors and Junction Diodes	1
2 Basic Principles of Transistors	23
3 Common-base and Common-gate Amplifiers	53
4 Common-emitter and Common-source Amplifiers	65
5 Common-collector and Common-drain Amplifiers (Emitter and Source Followers)	77
6 Bias and D.C. Stabilisation	89
7 Small-signal A.F. Amplifiers	109
8 Large-signal A.F. Amplifiers	130
9 D.C. and Pulse Amplifiers	154
10 R.F. and I.F. Amplifiers	176
11 Sinusoidal Oscillators	201
12 Modulators, Demodulators, Mixers and Receivers	219
13 Pulse Generators	247
14 Sawtooth Generators	272
15 Digital Circuits	285
16 Further Applications of Transistors and other Semiconductor Devices	321
Appendix A The Manufacture of Transistors and Integrated Circuits	361
Appendix B Transistor Parameters	374
Appendix C The Stability of a Transistor Tuned Amplifier	380
Appendix D Semiconductor Letter Symbols	383
Index	389

DOCKET ALARM Find authenticated court documents without watermarks at docketalarm.com.

DOCKET ALARM

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts

Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research

With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips

Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS
Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS
Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS
Sync your system to PACER to automate legal marketing.