

NINTH EDITION

PRINCIPLES OF

Transistor Circuits

Stan Amos & Mike James

Soranaree University of Technology



31051000613792



Newnes

Contents

Preface to the ninth edition	vii
1 Semiconductors and junction diodes	1
2 Basic principles of transistors	22
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)	78
6 Bias and d.c. stabilisation	90
7 Small-signal a.f. amplifiers	112
8 Large-signal a.f. amplifiers	134
9 D.C. and pulse amplifiers	158
10 R.F. and I.F. amplifiers	180
11 Sinusoidal oscillators	205
12 Modulators, demodulators, mixers and receivers	227
13 Pulse generators	255
14 Sawtooth generators	281
15 Digital circuits	293
16 Further applications of transistors and other semiconductor devices	328
Appendix A The manufacture of transistors and integrated circuits	369
Appendix B Transistor parameters	381
Appendix C The stability of a transistor tuned amplifier	387
Appendix D Semiconductor letter symbols	390
Index	397