

2N3107 THROUGH 2N3110

NPN SILICON AF MEDIUM POWER AMPLIFIERS & SWITCHES

THE 2N3107 THROUGH 2N3110 ARE NPN SILICON PLANAR EPITAXIAL TRANSISTORS FOR AF MEDIUM POWER DRIVERS AND OUTPUTS, AS WELL AS FOR SWITCHING APPLICATIONS UP TO 1 AMPERE. THEY ARE COMPLEMENTARY TO THE PNP 2N4032, 2N4030.

CASE TO-39



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ABSOLUTE MAXIMUM RATINGS

Collector-Base Voltage	VCBO	2N3107 2N3108	100V	2N3109 2N3110	80V
Collector-Emitter Voltage	VCEO		60V		40V
Emitter-Base Voltage	VEBO		7V		7V
Collector Current	IC				1A
Total Power Dissipation ($T_C \leq 25^\circ\text{C}$)	Ptot				5W
					800mW
Operating Junction & Storage Temperature	Tj, Tstg				-65 to 200°C

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	MIN	MAX	UNIT	TEST CONDITIONS
Collector-Base Breakdown Voltage 2N3107, 2N3108 2N3109, 2N3110	BVCBO	100 80		V V	IC=0.1mA IE=0
Collector-Emitter Breakdown Voltage 2N3107, 2N3108 2N3109, 2N3110	LVCEO *	60 40		V V	IC=30mA IB=0
Emitter-Base Breakdown Voltage	BVEBO	7		V	IE=0.1mA IC=0
Collector Cutoff Current	ICES		10	nA	VCE=60V VBE=0
Collector Cutoff Current ($T_A = 150^\circ\text{C}$)	ICBO		10	μA	VCB=60V IE=0
Emitter Cutoff Current	IEBO		10	nA	VEB=5V IC=0
Collector-Emitter Saturation Voltage	VCE(sat)*		0.25 1.0	V V	IC=150mA IB=15mA IC=1A IB=0.1A
Base-Emitter Saturation Voltage	VBE(sat)*		1.1 2.0	V V	IC=150mA IB=15mA IC=1A IB=0.1A
D.C. Current Gain 2N3107, 2N3109 only	HFE *	35 100 40	300		IC=0.1mA VCE=10V IC=150mA VCE=1V IC=500mA VCE=10V

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