

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



C E B

ABSOLUTE MAXIMUM RATINGS

		2N3107 2N3108	2N3109 2N3110
Collector-Base Voltage	V _{CB0}	100V	80V
Collector-Emitter Voltage	V _{CEO}	60V	40V
Emitter-Base Voltage	V _{EB0}	7V	7V
Collector Current	I _C		1A
Total Power Dissipation (T _C ≤ 25°C)	P _{tot}		5W
(T _A ≤ 25°C)			800mW
Operating Junction & Storage Temperature	T _j , T _{stg}		-65 to 200°C

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	MIN	MAX	UNIT	TEST CONDITIONS
Collector-Base Breakdown Voltage 2N3107, 2N3108 2N3109, 2N3110	BV _{CB0}	100 80		V V	I _C =0.1mA I _E =0
Collector-Emitter Breakdown Voltage 2N3107, 2N3108 2N3109, 2N3110	LV _{CEO} *	60 40		V V	I _C =30mA I _B =0
Emitter-Base Breakdown Voltage	BV _{EB0}	7		V	I _E =0.1mA I _C =0
Collector Cutoff Current	I _{CES}		10	nA	V _{CE} =60V V _{BE} =0
Collector Cutoff Current (T _A =150°C)	I _{CBO}		10	μA	V _{CB} =60V I _E =0
Emitter Cutoff Current	I _{EBO}		10	nA	V _{EB} =5V I _C =0
Collector-Emitter Saturation Voltage	V _{CE(sat)} *		0.25 1.0	V V	I _C =150mA I _B =15mA I _C =1A I _B =0.1A
Base-Emitter Saturation Voltage	V _{BE(sat)} *		1.1 2.0	V V	I _C =150mA I _B =15mA I _C =1A I _B =0.1A
D.C. Current Gain 2N3107, 2N3109 only	h _{FE} *	35 100 40	300		I _C =0.1mA V _{CE} =10V I _C =150mA V _{CE} =1V I _C =500mA V _{CE} =10V

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