

**BC303****BC304**

PNP SILICON AF MEDIUM POWER AMPLIFIERS & SWITCHES

CASE TO-39

THE BC303, BC304 ARE PNP SILICON PLANAR EPITAXIAL TRANSISTORS RECOMMENDED FOR AF DRIVERS & OUTPUTS, AS WELL AS FOR SWITCHING APPLICATIONS UP TO 1 AMPERE. THEY ARE COMPLEMENTARY TO THE NPN TYPE BC300, BC301, BC302.

**ABSOLUTE MAXIMUM RATINGS**

		BC303	BC304
Collector-Base Voltage	-V _{CB0}	85V	60V
Collector-Emitter Voltage	-V _{CE0}	60V	45V
Emitter-Base Voltage	-V _{EB0}	7V	7V
Collector Current	-I _C	1A	
Total Power Dissipation (T _C ≤ 25°C) (T _A ≤ 25°C)	P _{tot}	6W	
		850mW	
Operating Junction & Storage Temperature	T _j , T _{stg}	-55 to 175°C	

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

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Collector-Emitter Breakdown Voltage BC303 BC304	-V _{CE0} *	60 45			V V	-I _C =100mA I _B =0
Collector-Emitter Breakdown Voltage BC303 only	-V _{CEV}	85			V	-I _C =100mA -V _{EB} =1.5V
Collector Cutoff Current	-I _{CB0}			20	nA	-V _{CB} =60V I _B =0
Emitter Cutoff Current	-I _{EB0}			20	nA	-V _{EB} =5V I _C =0
Collector-Emitter Saturation Voltage	-V _{CE(sat)} *		0.1	0.65	V	-I _C =150mA -I _B =15mA
Base-Emitter Voltage	-V _{BE} *		0.78		V	-I _C =150mA -V _{CE} =10V
D.C. Current Gain	H _{FE} *	20 40 20		240		-I _C =0.1mA -V _{CE} =10V -I _C =150mA -V _{CE} =10V -I _C =500mA -V _{CE} =10V
D.C. Current Gain	H _{FE} *	40 70 120		80 140 240		-I _C =150mA -V _{CE} =10V
Current Gain-Bandwidth Product	f _T		100		MHz	-I _C =10mA -V _{CE} =10V
Collector-Base Capacitance	C _{ob}		17		pF	-V _{CB} =10V I _B =0 f=1MHz

* Pulse Test : Pulse Width=0.3ms, Duty Cycle=1%

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