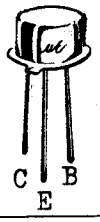
BC303 BC304

PNP SILICON AF MEDIUM POWER AMPLIFIERS & SWITCHES

MICRO ELECTRONICS

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	$-V_{CBO}$	85V	60V
Collector-Emitter Voltage	$-V_{CEO}$	60V	45V
Emitter-Base Voltage	$-V_{EBO}$	7V	7V
Collector Current	$-I_C$	1A	
Total Power Dissipation ($T_C \leq 25^oC$)	P_{tot}	6W	
($T_A \leq 25^oC$)		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	$-LV_{CEO}$ *					$-I_C$=100mA I_B=0
BC303		60			V	
BC304		45			V	
Collector-Emitter Breakdown Voltage	$-LV_{CEV}$					$-I_C$=100mA $-V_{EB}$=1.5V
BC303 only		85			V	
Collector Cutoff Current	$-I_{CBO}$			20	nA	$-V_{CB}$=60V I_E=0
Emitter Cutoff Current	$-I_{EBO}$			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				$-I_C$=0.1mA $-V_{CE}$=10V
		40		240		$-I_C$=150mA $-V_{CE}$=10V
		20				$-I_C$=500mA $-V_{CE}$=10V
D.C. Current Gain Group 4	H_{FE} *	40		80		$-I_C$=150mA $-V_{CE}$=10V
Group 5		70		140		
Group 6		120		240		
Current Gain-Bandwidth Product	f_T		100		MHz	-IC=10mA -VCE=10V
Collector-Base Capacitance	Cob		17		pF	$-V_{CB}$=10V I_E=0 f=1MHz

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

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TYPICAL CHARACTERISTICS