

MAXIMUM RATINGS

Rating	Symbol	BC 486	BC 488	BC 490	Unit
Collector-Emitter Voltage	V _{CEO}	45	60	80	Vdc
Collector-Base Voltage	V _{CBO}	45	60	80	Vdc
Emitter-Base Voltage	V _{EBO}	4.0			Vdc
Collector Current - Continuous	I _C	1.0			Adc
Total Device Dissipation @ T _A = 25°C Derate above 25°C	P _D	625 5.0			mW mW/°C
Total Device Dissipation @ T _C = 25°C Derate above 25°C	P _D	1.5 12			Watt mW/°C
Operating and Storage Junction Temperature Range	T _J , T _{stg}	-55 to +150			°C

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	R _{θJC}	83.3	°C/W
Thermal Resistance, Junction to Ambient	R _{θJA}	200	°C/W

BC486 BC488 BC490

**CASE 29-02, STYLE 17
TO-92 (TO-226AA)**

HIGH CURRENT TRANSISTORS

PNP SILICON

Refer to MPSA55 for graphs.

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

Characteristic	Symbol	Min.	Typ.	Max.	Unit
OFF CHARACTERISTICS					
Collector-Emitter Breakdown Voltage* (I _C = 10 mAdc, I _B = 0)	V _{(BR)CEO}	45 60 80	—	—	Vdc
Collector-Base Breakdown Voltage (I _C = 100 μAdc, I _E = 0)	V _{(BR)CBO}	45 60 80	—	—	Vdc
Emitter-Base Breakdown Voltage (I _E = 10 μAdc, I _C = 0)	V _{(BR)EBO}	4.0	—	—	Vdc
Collector Cutoff Current V _{CB} = 30 Vdc - I _E = 0	I _{CBO}	—	—	100	nAdc
V _{CB} = 40 Vdc - I _E = 0		—	—	100	
V _{CB} = 60 Vdc - I _E = 0		—	—	100	

ON CHARACTERISTICS*

DC Current Gain (I _C = 10 mAdc - V _{CE} = 2.0 Vdc) (I _C = 100 mAdc - V _{CE} = 2.0 Vdc)	h _{FE}	40	—	—	
		full range	60	—	400
		- L	60	100	150
		- A	100	140	250
		- B	160	260	400
(I _C = 1 Adc - V _{CE} = 5.0 Vdc)		15			
Collector Emitter Saturation Voltage (I _C = 500 mAdc - I _B = 50 mAdc) (I _C = 1 Adc - I _B = 100 mAdc)	V _{CE(sat)}	—	0.25 0.50	0.50 —	Vdc
Base Emitter Saturation Voltage (I _C = 500 mAdc, I _B = 50 mAdc) (I _C = 1 Adc - I _B = 100 mAdc)	V _{BE(sat)}	—	0.90 1.00	1.20	Vdc

DYNAMIC CHARACTERISTICS

Current-Gain-Bandwidth Product (I _C = 50 mAdc, V _{CE} = 2.0 Vdc, f = 100 MHz)	f _T	—	150	—	MHz
Output Capacitance (V _{CB} = 10 Vdc, I _E = 0, f = 1.0 MHz)	C _{ob}	—	9	—	pF
Input Capacitance (V _{BE} = 0.5 Vdc, I _C = 0, f = 1.0 MHz)	C _{ib}	—	110	—	pF

* Pulse test - Pulse width = 300 μs - Duty Cycle 2%.