

# BC486 BC488 BC490

PNP SILICON PLANAR EPITAXIAL TRANSISTORS

**MICRO ELECTRONICS**

BC486, BC488 and BC490 are PNP silicon planar epitaxial transistors designed for use as high voltage high current driver and output transistors.

CASE TO-92F



CBE

## ABSOLUTE MAXIMUM RATINGS

		BC486	BC488	BC490
Collector-Base Voltage	V <sub>CB0</sub>	45V	60V	80V
Collector-Emitter Voltage	V <sub>CE0</sub>	45V	60V	80V
Emitter-Base Voltage	V <sub>EB0</sub>		5V	
Collector Current	I <sub>C</sub>		1A	
Total Power Dissipation @ T <sub>A</sub> =25°C	P <sub>tot</sub>		625mW	
			1.5W	
Operating Junction & Storage Temperature	T <sub>j</sub> , T <sub>stg</sub>	-55 to +150°C		

## ELECTRICAL CHARACTERISTICS AT T<sub>A</sub>=25°C

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Collector-Base Breakdown Voltage	BV <sub>CB0</sub>	↑			V	I <sub>C</sub> =0.1mA I <sub>E</sub> =0
Collector-Emitter Breakdown Voltage	BV <sub>CE0</sub>	Note 1			V	I <sub>C</sub> =10mA I <sub>B</sub> =0
Emitter-Base Breakdown Voltage	BV <sub>EB0</sub>	↓			V	I <sub>E</sub> =10μA I <sub>C</sub> =0
Collector Cutoff Current	I <sub>CB0</sub>			100	nA	V <sub>CB</sub> =V <sub>CB0</sub> I <sub>E</sub> =0
Collector-Emitter Saturation Voltage	V <sub>CE(SAT)</sub> *			0.5	V	I <sub>C</sub> =500mA I <sub>B</sub> =50mA
Base-Emitter Saturation Voltage	V <sub>BE(SAT)</sub> *			1.2	V	I <sub>C</sub> =500mA I <sub>B</sub> =50mA
D.C. Current Gain	H <sub>FE</sub> *	40				I <sub>C</sub> =10mA V <sub>CE</sub> =2V
		60		400		I <sub>C</sub> =100mA V <sub>CE</sub> =2V
		60		150		I <sub>C</sub> =100mA V <sub>CE</sub> =2V
		100		250		I <sub>C</sub> =100mA V <sub>CE</sub> =2V
		160		400		I <sub>C</sub> =100mA V <sub>CE</sub> =2V
		15				I <sub>C</sub> =1A V <sub>CE</sub> =5V
Current Gain-Bandwidth Product	f <sub>T</sub>		75		MHz	I <sub>C</sub> =50mA V <sub>CE</sub> =2V
Output Capacitance	C <sub>ob</sub>		12		pF	V <sub>CB</sub> =10V I <sub>E</sub> =0
Input Capacitance	C <sub>ib</sub>		85		pF	V <sub>BE</sub> =2V I <sub>C</sub> =0

Note 1: equal to the values of the absolute maximum ratings.

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

**MICRO ELECTRONICS LTD.**

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