



BC 485

BC 487

BC 489

NPN SILICON PLANAR EPITAXIAL TRANSISTORS

MICRO ELECTRONICS

BC485, BC487 and BC489 are NPN silicon planar epitaxial transistors designed for use as high voltage high current driver and output transistors.

CASE TO-92F



CBE

ABSOLUTE MAXIMUM RATINGS

	BC485	BC487	BC489
Collector-Base Voltage	VCBO 45V	60V	80V
Collector-Emitter Voltage	VCEO 45V	60V	80V
Emitter-Base Voltage	VEBO	5V	
Collector Current	IC	1A	
Total Power Dissipation @ $T_A=25^\circ\text{C}$ @ $T_C=25^\circ\text{C}$	Ptot	625mW 1.5W	
Operating Junction & Storage Temperature	T_j, T_{stg}	-55 to +150°C	

ELECTRICAL CHARACTERISTICS AT $T_A=25^\circ\text{C}$

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Collector-Base Breakdown Voltage	BVCBO	↑			V	$I_C=0.1\text{mA}$ $I_E=0$
Collector-Emitter Breakdown Voltage	BVCEO	Note 1			V	$I_C=10\text{mA}$ $I_B=0$
Emitter-Base Breakdown Voltage	BVEBO	↓			V	$I_E=10\mu\text{A}$ $I_C=0$
Collector Cutoff Current	ICBO			100	nA	$V_{CB}=V_{CBO}$ $I_E=0$
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}^*$			0.5	V	$I_C=500\text{mA}$ $I_B=50\text{mA}$
Base-Emitter Saturation Voltage	$V_{BE(SAT)}^*$			1.2	V	$I_C=500\text{mA}$ $I_B=50\text{mA}$
D.C. Current Gain	HFE*	40				$I_C=10\text{mA}$ $V_{CE}=2\text{V}$
		60	400			$I_C=100\text{mA}$ $V_{CE}=2\text{V}$
		60	150			$I_C=100\text{mA}$ $V_{CE}=2\text{V}$
		100	250			$I_C=100\text{mA}$ $V_{CE}=2\text{V}$
		160	400			$I_C=100\text{mA}$ $V_{CE}=2\text{V}$
		15				$I_C=1\text{A}$ $V_{CE}=5\text{V}$
Current Gain-Bandwidth Product	f_T		75		MHz	$I_C=50\text{mA}$ $V_{CE}=2\text{V}$
Output Capacitance	Cob		12		pF	$V_{CB}=10\text{V}$ $I_E=0$
Input Capacitance	Cib		85		pF	$V_{BE}=2\text{V}$ $I_C=0$

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

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

