

SOT23 NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

BC817

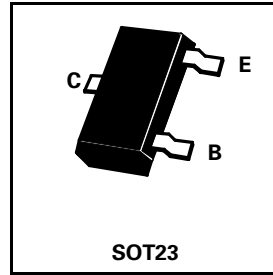
ISSUE 5 – MARCH 2001



PARTMARKING DETAILS

BC81716 – 6AZ
BC81725 – 6BZ
BC81740 – 6CZ

COMPLEMENTARY TYPE – BC807



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	45	V
Emitter-Base Voltage	V_{EBO}	5	V
Peak Pulse Current	I_{CM}	1	A
Continuous Collector Current	I_C	500	mA
Base Current	I_B	100	mA
Peak Base Current	I_{BM}	200	mA
Power Dissipation at $T_{amb}=25^{\circ}C$	P_{tot}	330	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^{\circ}C$

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector Cut-Off Current	I_{CBO}			0.1 5	μA μA	$V_{CB}=20V, I_E=0$ $V_{CB}=20V, I_E=0, T_{amb}=150^{\circ}C$
Emitter Cut-Off Current	I_{EBO}			10	μA	$V_{EB}=5V, I_C=0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			700	mV	$I_C=500mA, I_B=50mA^*$
Base-Emitter Saturation Voltage	$V_{BE(on)}$			1.2	V	$I_C=500mA, V_{CE}=1V^*$
Static Forward Current Transfer Ratio	h_{FE}					
		BC81716	100		250	$I_C=100mA, V_{CE}=1V^*$
		BC81725	160		400	$I_C=100mA, V_{CE}=1V^*$
		BC81740	250		600	$I_C=100mA, V_{CE}=1V^*$
All bands		40				$I_C=500mA, V_{CE}=1V^*$
Transition Frequency	f_T		200		MHz	$I_C=10mA, V_{CE}=5V$ $f=35MHz$
Output Capacitance	C_{obo}		5.0		pF	$V_{CB}=10V, f=1MHz$

*Measured under pulsed conditions.

