

SOT23 NPN SILICON PLANAR MEDIUM POWER TRANSISTORS

BC817 BC818

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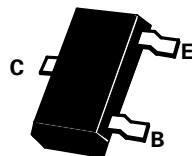


PARTMARKING DETAILS

BC817 – 6DZ	BC818 – 6HZ
BC817-16 – 6AZ	BC818-16 – 6EZ
BC817-25 – 6BZ	BC818-25 – 6FZ
BC817-40 – 6CZ	BC818-40 – 6GZ

COMPLEMENTARY TYPES

BC817	–	BC807
BC818	–	BC808



SOT23

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	BC817	BC818	UNIT
Collector-Base Voltage	V_{CBO}	50	30	V
Collector-Emitter Voltage	V_{CEO}	45	25	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 $T_{amb}=25^\circ\text{C}$	P_{tot}	330		mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150		$^\circ\text{C}$

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector Cut-Off Current	I_{CBO}			0.1 5	μA μA	$V_{CB}=20\text{V}, I_E=0$ $V_{CB}=20\text{V}, I_E=0, T_{amb}=150^\circ\text{C}$
Emitter Cut-Off Current	I_{EBO}			10	μA	$V_{EB}=5\text{V}, I_C=0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			700	mV	$I_C=500\text{mA}, I_B=50\text{mA}^*$
Base-Emitter Turn-on Voltage	$V_{BE(on)}$			1.2	V	$I_C=500\text{mA}, V_{CE}=1\text{V}^*$
Static Forward Current Transfer Ratio	h_{FE}	100		600		$I_C=100\text{mA}, V_{CE}=1\text{V}^*$
		40				$I_C=500\text{mA}, V_{CE}=1\text{V}^*$
		-16	100	250		$I_C=100\text{mA}, V_{CE}=1\text{V}^*$
		-25	160	400		$I_C=100\text{mA}, V_{CE}=1\text{V}^*$
		250		600		$I_C=100\text{mA}, V_{CE}=1\text{V}^*$
Transition Frequency	f_T		200		MHz	$I_C=10\text{mA}, V_{CE}=5\text{V}$ $f=35\text{MHz}$
Collector-base Capacitance	C_{obo}		5.0		pF	$I_E=I_B=0, V_{CB}=10\text{V}$ $f=1\text{MHz}$

*Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$



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