SOT23 NPN SILICON PLANAR MEDIUM POWER TRANSISTORS

BC817
BC818

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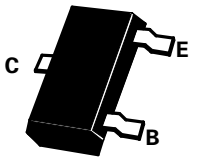
PARTMARKING DETAILS

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°C	P_{tot}	330		mW
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150		°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°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°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 Turn-on Voltage		$V_{BE(on)}$			1.2	V	I_C=500mA, V_{CE}=1V*
Static Forward Current Transfer Ratio		h_{FE}	100 40		600		I_C=100mA, V_{CE}=1V* I_C=500mA, V_{CE}=1V*
	-16		100		250		I_C=100mA, V_{CE}=1V*
	-25		160		400		I_C=100mA, V_{CE}=1V*
	-40		250		600		I_C=100mA, V_{CE}=1V*
Transition Frequency		f_T		200		MHz	I_C=10mA, V_{CE}=5V f=35MHz
Collector-base Capacitance		C_{obo}		5.0		pF	I_E=I_e=0, V_{CB}=10V f=1MHz

*Measured under pulsed conditions. Pulse width=300µs. Duty cycle ≤ 2%