

# SOT23 NPN SILICON PLANAR MEDIUM POWER TRANSISTORS

## BC817 BC818

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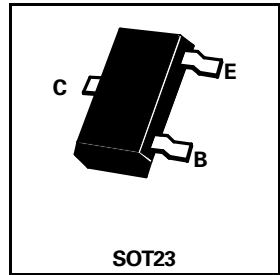


## PARTMARKING DETAILS

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

**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 $T_{amb}=25^{\circ}C$	$P_{tot}$	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	$\mu A$ $\mu A$	$V_{CB}=20V, I_E=0$ $V_{CB}=20V, I_E=0, T_{amb}=150^{\circ}C$
Emitter Cut-Off Current	$I_{EBO}$			10	$\mu A$	$V_{EB}=5V, I_C=0$
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		600		$I_C=100mA, V_{CE}=1V^*$
		40				$I_C=500mA, V_{CE}=1V^*$
		-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	$I_E=I_B=0, V_{CB}=10V$ $f=1MHz$

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