

T-37-17

BSS82BL, CLCASE 318-03, STYLE 6
SOT-23 (TO-236AB)**MAXIMUM RATINGS**

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	60	Vdc
Collector-Base Voltage	V_{CBO}	60	Vdc
Emitter-Base Voltage	V_{EBO}	5.0	Vdc

THERMAL CHARACTERISTICS

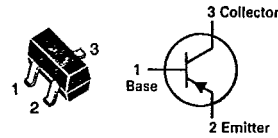
Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board,* $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D	225	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	556	$^\circ\text{C/W}$
Total Device Dissipation Alumina Substrate,** $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D	300	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	417	$^\circ\text{C/W}$
Junction and Storage Temperature	T_J, T_{stg}	-55 to +150	$^\circ\text{C}$

*FR-5 = 1.0 x 0.75 x 0.062 in.

**Alumina = 0.4 x 0.3 x 0.024 in. 99.5% alumina.

DEVICE MARKING

BSS82BL = CH; BSS82CL = CM

**GENERAL PURPOSE
TRANSISTORS**

PNP SILICON

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted.)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector-Emitter Breakdown Voltage ($I_C = 10\text{ mA}$)	$V_{(BR)CEO}$	60	—	Vdc
Collector-Base Breakdown Voltage ($I_C = 10\text{ }\mu\text{A}$)	$V_{(BR)CBO}$	60	—	Vdc
Emitter-Base Breakdown Voltage ($I_E = 10\text{ }\mu\text{A}$)	$V_{(BR)EBO}$	5.0	—	Vdc
Collector Cutoff Current ($V_{CB} = 50\text{ V}$) ($V_{CB} = 50\text{ V}, T_A = 150^\circ\text{C}$)	I_{CBO}	—	10 10	nA μA
Emitter Cutoff Current ($V_{EB} = 3.0\text{ V}$)	I_{EBO}	—	10	nA
ON CHARACTERISTICS				
DC Current Gain ($I_C = 150\text{ mA}, V_{CE} = 10\text{ V}$)	BSS82BL BSS82CL h_{FE}	40 100	120 300	— —
Collector-Emitter Saturation Voltage ($I_C = 150\text{ mA}, I_B = 15\text{ mA}$) ($I_C = 500\text{ mA}, I_B = 50\text{ mA}$)	$V_{CE(sat)}$	— —	0.4 1.6	Vdc
SMALL-SIGNAL CHARACTERISTICS				
Current-Gain — Bandwidth Product ($I_C = 50\text{ mA}, V_{CE} = 20\text{ V}, f = 200\text{ MHz}$)	f_T	100	—	MHz