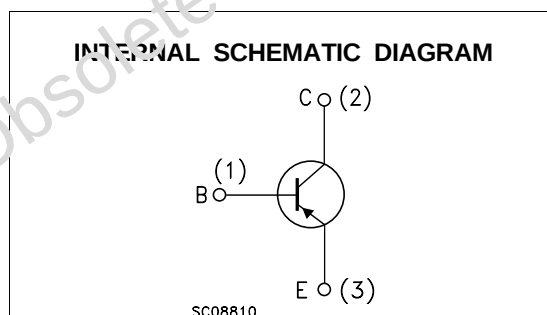
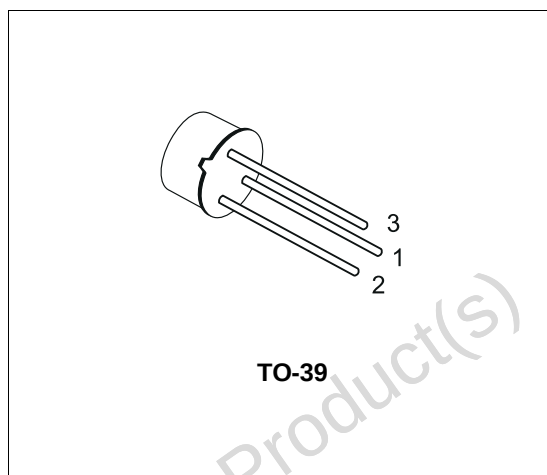


SILICON PNP TRANSISTOR

- STMicroelectronics PREFERRED SALESTYPE
- PNP TRANSISTOR

DESCRIPTION

The BSS44 is a silicon epitaxial planar PNP transistor in Jedec TO-39 metal case. It is used for high-current switching and power applications up to 5 A.



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage ($I_E = 0$)	- 65	V
V_{CEO}	Collector-Emitter Voltage ($I_B = 0$)	- 60	V
V_{EBO}	Emitter-Base Voltage ($I_C = 0$)	- 6	V
I_C	Collector Current	- 5	A
P_{tot}	Total Dissipation at $T_{case} \leq 25\text{ }^{\circ}\text{C}$ $T_{amb} \leq 25\text{ }^{\circ}\text{C}$	5 0.87	W W
T_{stg}	Storage Temperature	-65 to 200	$^{\circ}\text{C}$
T_j	Max. Operating Junction Temperature	200	$^{\circ}\text{C}$

BSS44

THERMAL DATA

$R_{thj-case}$	Thermal Resistance Junction-case	Max	35	$^{\circ}C/W$
$R_{thj-amb}$	Thermal Resistance Junction-amb	Max	200	$^{\circ}C/W$

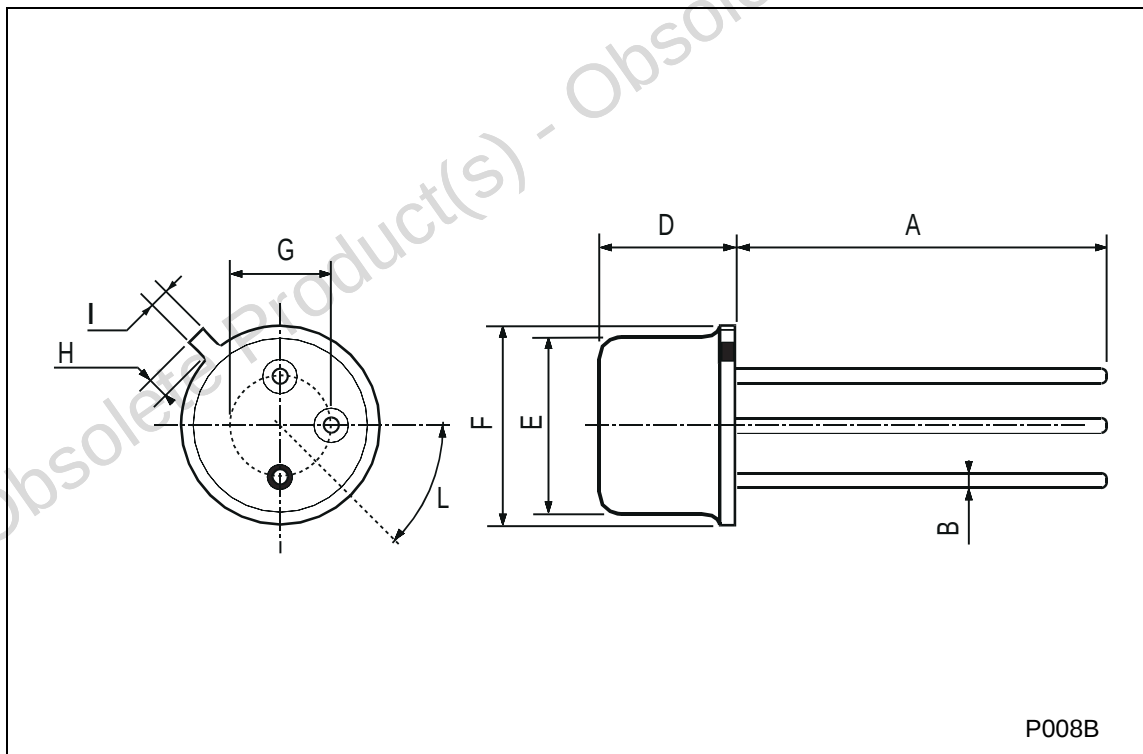
ELECTRICAL CHARACTERISTICS ($T_{case} = 25^{\circ}C$ unless otherwise specified)

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
I_{CES}	Collector Cut-off Current ($V_{BE}=0$)	$V_{CE} = -60 V$				-0.5	μA
$V_{(BR)CBO}^{*}$	Collector-base Breakdown Voltage ($I_E = 0$)	$I_C = -1 mA$		-65			V
$V_{CEO(sus)}^{*}$	Collector-Emitter Sustaining Voltage ($I_B = 0$)	$I_C = -50 mA$		-60			V
V_{EBO}^{*}	Emitter-base Voltage ($I_C = 0$)	$I_E = -1 mA$		-6			V
$V_{CE(sat)}^{*}$	Collector-Emitter Saturation Voltage	$I_C = -0.5 A$ $I_C = -5 A$	$I_B = -50 mA$ $I_B = -0.5 A$		-0.1 -0.4	-1	V V
$V_{BE(sat)}^{*}$	Base-Emitter Saturation Voltage	$I_C = -0.5 A$ $I_C = -5 A$	$I_B = -50 mA$ $I_B = -0.5 A$		-0.8 -1.1	-1.6	V V
h_{FE}^{*}	DC Current Gain	$I_C = -0.5 A$ $I_C = -2 A$ $I_C = -5 A$	$V_{CE} = -2 V$ $V_{CE} = -2 V$ $V_{CE} = -2 V$	30 40	70 45		
f_T^{*}	Transition Frequency	$I_C = -0.5 A$	$V_{CE} = -5 V$		80		MHz
C_{CBO}	Collector-base Capacitance	$I_E = 0$ $f = 1 MHz$	$V_{CB} = 10 V$			100	pF
t_{on}	Turn-on Time	$I_C = -0.5 A$	$V_{CC} = -20 V$		0.065		μs
t_{off}	Turn-off Time	$I_{B1} = -I_{B2} = -50 mA$			0.45		μs

* Pulsed: Pulse duration = 300 μs , duty cycle 1.5 %

TO-39 MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	12.7			0.500		
B			0.49			0.019
D			6.6			0.260
E			8.5			0.334
F			9.4			0.370
G	5.08			0.200		
H			1.2			0.047
I			0.9			0.035
L	45° (typ.)					



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