

Boca Semiconductor Corp.  
BSC  
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### General Purpose Power Transistor

#### ABSOLUTE MAXIMUM RATINGS (Ta=25 deg C)

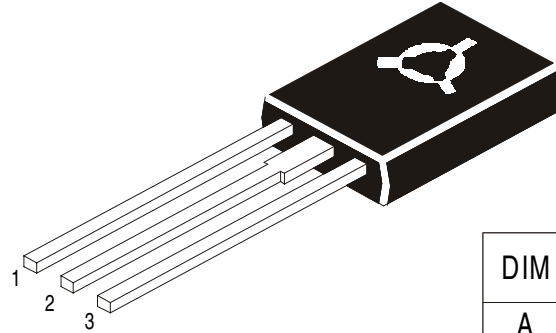
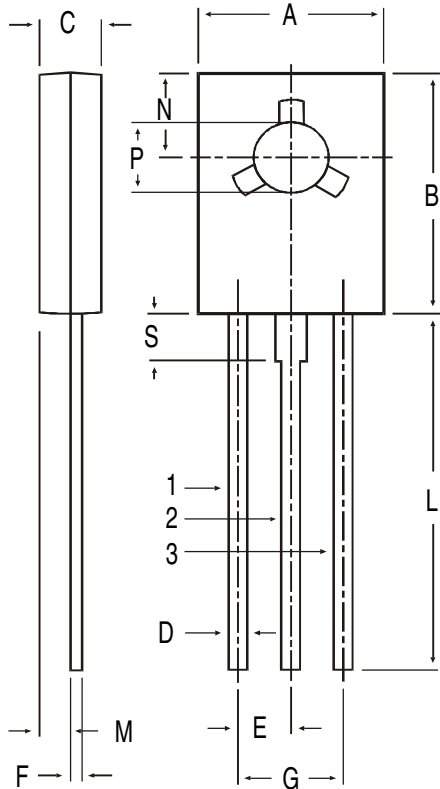
DESCRIPTION		VALUE	UNIT
Collector -Base Voltage	VCBO	80	V
Collector -Emitter Voltage	VCEO	80	V
Emitter Base Voltage	VEBO	5.0	V
Collector Current Continuous	IC	3.0	A
Base Current	IB	1.0	A
Power Dissipation @ Tc=25 deg C	PD	30	W
Derate Above 25 deg C		0.24	W/deg C
Operating And Storage Junction Temperature Range	Tj, Tstg	-65 to +150	deg C
Lead Temperature for Soldering 1/16" from Body for 10 Seconds.	TL	260	deg C
Thermal Resistance Junction to Case	Rth (j-c)	4.16	deg C/W

#### ELECTRICAL CHARACTERISTICS (Ta=25 deg C Unless Otherwise Specified)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector -Emitter Sustaining Voltage	VCEO(sus)	IC=100mA, IB=0	80	-	-	V
Collector Cut off Current	ICEO	VCE=40V, IB=0	-	-	0.5	mA
		ICBO	-	-	0.1	mA
		ICEX	-	-	0.1	mA
		Tc=125 deg C	-	-	0.5	mA
Emitter Cut off Current	IEBO	VEB=5V, IC=0	-	-	1.0	mA
DC Current Gain	hFE *	IC=50mA, VCE=1V	40	-	-	-
		IC=500mA, VCE=1V	30	-	150	-
		IC=1A, VCE=1V	10	-	-	-
Collector Emitter Saturation Voltage	VCE(sat)*	IC=1A, IB=0.1A	-	-	0.6	V
Base Emitter Saturation Voltage	VBE(sat)*	IC=1A, IB=0.1A	-	-	1.3	V
Base Emitter on Voltage	VBE(on) *	IC=1A, VCE=1V	-	-	1.3	V
<b>DYNAMIC CHARACTERISTICS</b>						
Transistors frequency	ft	IC=250mA, VCE=10V, f=1MHz	3.0	-	-	MHz
Output Capacitance	Cob	VCB=10V, IE=0, f=100kHz	-	-	100	pF
Small Signal Current Gain	hfe	IC=250mA, VCE=10V, f=1kHz	25	-	-	-

\*Pulse Test PW=300us, Duty Cycle=2%

## TO-126 (SOT-32) Plastic Package



### PIN CONFIGURATION

1. EMITTER
2. COLLECTOR
3. BASE

DIM	MIN.	MAX.
A	7.4	7.8
B	10.5	10.8
C	2.4	2.7
D	0.7	0.9
E	2.25 TYP.	
F	0.49	0.75
G	4.5 TYP.	
L	15.7 TYP.	
M	1.27 TYP.	
N	3.75 TYP.	
P	3.0	3.2
S	2.5 TYP.	

All dimensions in mm.