

# Boca Semiconductor Corp.

## BSC

### General Purpose Transistor

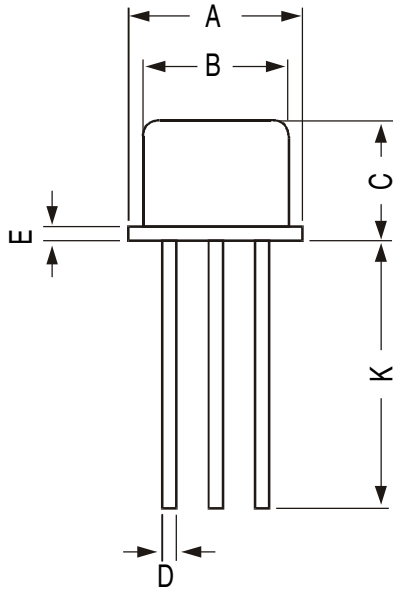
#### ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector -Emitter Voltage	VCEO	65	V
Collector -Base Voltage	VCBO	90	V
Emitter Base Voltage	VEBO	7.0	V
Base Current	IB	0.5	A
Collector Current -Continuous	IC	1.0	A
Power Dissipation @ Tc=25 deg C	PD	5.0	W
Linear Derating Factor		28.6	mW/deg C
Power Dissipation @ Ta=25 deg C	PD	1.0	W
Linear Derating Factor		5.72	mW/deg C
Operating & Storage Junction Temperature Range	Tj, Tstg	-65 to +200	deg C
Lead Temperature 1/16" from Case for 10 Seconds	TL	230	deg C
<b>Thermal Resistance</b>			
Junction to Case	Rth (j-c)	35	deg C/W

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

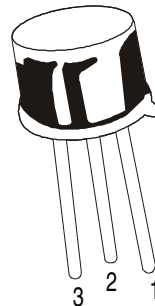
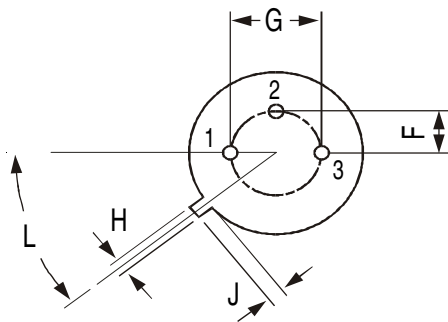
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector -Emitter Voltage	VCEO	IC=10mA, IB=0	65	-	-	V
Collector -Base Voltage	VCBO	IC=100uA, IE=0	90	-	-	V
Collector Cut off Current	ICEX	VCE=85V, VBE=1.5V	-	-	0.1	mA
	ICBO	VCB=90V, IE=0	-	-	1.0	uA
Emitter Cut off Current	IEBO	VBE=7V, IC=0	-	-	10	uA
DC Current Gain	hFE	0.1mA, VCE=10V	20	-	-	
		IC=150mA, VCE=2V	20	-	200	
		IC=150mA, VCE=10V	40	-	140	
		IC=500mA, VCE=10V	20	-	-	
Collector -Emitter (sat) Voltage	VCE(sat)	IC=150mA, IB=15mA	-	-	0.65	V
Base -Emitter (sat) Voltage	VBE(sat)	IC=150mA, IB=15mA	-	-	1.4	V
<b>Small- Signal Characteristics</b>						
Current Gain- High Frequency	lhfe1	IC=50mA, VCE=10V, f=20MHz	3.0	-	-	
<b>Switching Characteristics</b>						
Rise time	tr	IB1=15mA, IC=150mA, VCE=30V	-	-	70	ns
Storage time	ts	IB2=15mA, IC=150mA, VCE=30V	-	-	600	ns
Fall time	tf	IB2=15mA, IC=150mA, VCE=30V	-	-	100	ns
Turn-on time	ton	IC=150mA, VCE=30V, IB1=IB2=	-	-	110	ns
Turn-off time	toff	15mA	-	-	700	ns

## TO-39 Metal Can Package



All dimensions are in mm

DIM	MIN	MAX
A	8.50	9.39
B	7.74	8.50
C	6.09	6.60
D	0.40	0.53
E	—	0.88
F	2.41	2.66
G	4.82	5.33
H	0.71	0.86
J	0.73	1.02
K	12.70	—
L	42 DEG	48 DEG



### PIN CONFIGURATION

1. EMITTER
2. BASE
3. COLLECTOR