

# Boca Semiconductor Corp. BSC http://www.bocasemi.com

### **General Purpose Transistor**

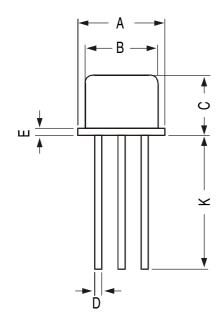
### **ABSOLUTE MAXIMUM RATINGS**

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	Α
Collector Current -Continuous	IC	1.0	Α
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	Tj, Tstg	-65 to +200	deg C
Temperature Range			
Lead Temperature 1/16" from Case	TL	230	deg C
for 10 Seconds			
Thermal Resistance			
Junction to Case	Rth (j-c)	35	deg C/W

ELECTRICAL CHARACTERISTICS (Ta=25 deg	C Unless Otherwise Specified)
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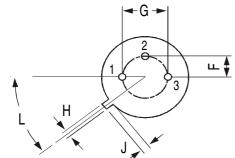
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector -Emitter Voltage	VCEO	IC=10mA, IB=0	65	-		V
Collector -Base Voltage	VCBO	IC=100uA, IE=0	90	-	-	V
Collector Cut off Current	ICEX	VCE=85V, VBE=1.5V	-	-	0.1	mΑ
	ICBO	VCB=90V, IE=0	-		1.0	uA
Emitter Cut off Current	IEBO	VBE=7V, IC=0	-		10	uA
DC 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
Small- Signal Characteristics						
Current Gain- High Frequency	Ihfel	IC=50mA,VCE=10V, f=20MHz	3.0	-	-	
Switching Characteristics						
Rise time	tr	IB1=15mA,IC=150mA, VCE=30V	-		70	ns
Sorage 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**



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DIM	MIN	MAX
Α	8.50	9.39
В	7.74	8.50
С	6.09	6.60
D	0.40	0.53
Е	1	0.88
F	2.41	2.66
G	4.82	5.33
Н	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

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