

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

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	Α
Base Current	IB	1.0	Α
Power Dissipation @ Tc=25 deg C	PD	30	W
Derate Above 25 deg C		0.24	W/deg C
Operating And Storage Junction	Tj, Tstg	-65 to +150	deg C
Temperature Range			
Lead Temperature for Soldering 1/16"	TL	260	deg C
from Body for 10 Seconds.			
Thermal Resistance			
Junction to Case	Rth (j-c)	4.16	deg C/W

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

Collector -Emitter Sustaining Voltage	\ <u>/CEO/</u> \		MIN	TYP	MAX	UNIT
	VCEO(sus)	IC=100mA, IB=0	80	-	-	V
Collector Cut off Current	ICEO	VCE=40V, IB=0	-	-	0.5	mΑ
	ICBO	VCB=80V, IE=0	-	-	0.1	mΑ
	ICEX	VCB=80V,VEB(0ff)=1.5V	-	-	0.1	mΑ
		Tc=125 deg C				
		VCB=80V,VEB(0ff)=1.5V	-	-	0.5	mΑ
Emitter Cut off Current	IEBO	VEB=5V, IC=0	-	-	1.0	mΑ
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
DYNAMIC CHARACTERISTICS						
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	-	-	

TO-126 (SOT-32) Plastic Package

