Central™
Semiconductor Corp.
145 Adams Avenue, Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824

Manufacturers of World Class Discrete Semiconductors

BSS44
BSS46

PNP SILICON TRANSISTOR

JEDEC TO-39 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR BSS44, BSS46, types are Silicon PNP Transistors designed for switching and general amplifier applications where a high collector current (5.0 AMPS) is required.

MAXIMUM RATINGS (T_A=25°C)

	SYMBOL	BSS44	BSS46	UNIT
Collector-Base Voltage	V_{CBO}	65	85	V
Collector-Emitter Voltage	V_{CEO}	60	80	V
Emitter-Base Voltage	V_{EBO}	6.0	6.0	V
Collector Current	I_C	5.0	5.0	A
Power Dissipation	P_D	1.0	1.0	W
Power Dissipation (T_C=25°C)	P_D	5.0	5.0	W
Operating and storage Junction Temperature	T_J, T_{stg}	-65 TO +200		°C
Thermal Resistance	θ_{JA}	200		°C/W
Thermal Resistance	θ_{JC}	35		°C/W

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	BSS44 MIN	BSS44 MAX	BSS46 MIN	BSS46 MAX	UNIT
I_{CBO}	V_{CB}=60V		500		500	nA
I_{CBO}	V_{CB}=60V, T_A=100°C		200		200	µA
I_{CES}	V_{CE}=60V		500		500	nA
I_{CES}	V_{CE}=60V, T_A=100°C		200		200	µA
I_{EBO}	V_{EB}=5.0V		100		100	nA
BV_{CBO}	I_C=5.0mA	65		85		V
BV_{CEO}	I_C=100mA	60		85		V
BV_{EBO}	I_E=1.0mA	6.0		6.0		V
$V_{CE(SAT)}$	I_C=500mA, I_B=50mA	100 TYP		-		mV
$V_{CE(SAT)}$	I_C=5.0A, I_B=0.5A		1.0		1.4	V
$V_{BE(SAT)}$	I_C=500mA, I_B=50mA	750 TYP		-		mV
$V_{BE(SAT)}$	I_C=5.0A, I_B=0.5A		1.6		1.6	V
h_{FE}	V_{CE}=2.0V, I_C=500mA	30		25		
h_{FE}	V_{CE}=2.0V, I_C=2.0A	40		30		
h_{FE}	V_{CE}=2.0V, I_C=5.0A	50 TYP		-		
f_T	V_{CE}=5.0V, I_C=500mA	70		70		MHz
C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz		100		100	pF
C_{ib}	V_{EB}=0.5V, I_C=0, f=1.0MHz	700 TYP		700 TYP		pF
t_{on}	V_{CC}=20V, I_C=0.5A, I_{B1}=I_{B2}=50mA	65 TYP		-		ns
t_{off}	V_{CC}=20V, I_C=0.5A, I_{B1}=I_{B2}=50mA	450 TYP		-		ns
t_{on}	V_{CC}=20V, I_C=1.0A, I_{B1}=I_{B2}=50mA	-			0.3	µs
t_{off}	V_{CC}=20V, I_C=1.0A, I_{B1}=I_{B2}=50mA	-			1.0	µs