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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 _{CB0}	65	85	V
Collector-Emitter Voltage	V _{CE0}	60	80	V
Emitter-Base Voltage	V _{EB0}	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		BSS46		UNIT
		MIN	MAX	MIN	MAX	
I _{CB0}	V _{CB} =60V		500		500	nA
I _{CB0}	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 _{EB0}	V _{EB} =5.0V		100		100	nA
BV _{CB0}	I _C =5.0mA	65		85		V
BV _{CE0}	I _C =100mA	60		85		V
BV _{EB0}	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