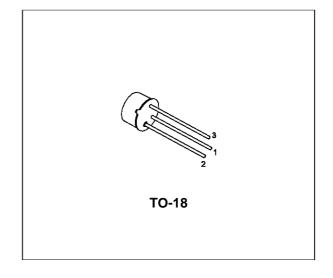


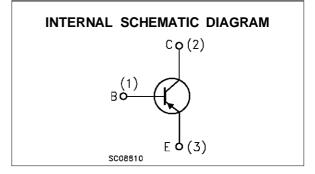
BFW43

HIGH VOLTAGE AMPLIFIER

DESCRIPTION

The BFW43 is a silicon planar epitaxial PNP transistors in Jedec TO-18 metal case. It is designed for use in amplifiers where high voltage and high gain are necessary. In particular, its feature a V_{CEO} of 150V are specified over a wide range of curent.





ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
Vсво	Collector-Base Voltage (I _E = 0)	-150	V
V _{CEO}	Collector-Emitter Voltage (I _B = 0)	-150	V
V _{EBO}	Emitter-Base Voltage $(I_C = 0)$	-6	V
Ιc	Collector Current	-0.1	Α
P _{tot}	Total Dissipation at T _{amb} ≤ 25 °C at T _{case} ≤ 25 °C	0.4 1.4	W W
T _{stg}	Storage Temperature	-55 to 200	°C
Tj	Max. Operating Junction Temperature	200	°C

November 1997

THERMAL DATA

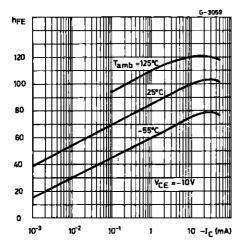
R _{thj-case}	Thermal Res	sistance .	Junction-Case	Max	125	°C/W
R _{thj-amb}	Thermal Res	sistance .	Junction-Ambient	Max	438	°C/W

ELECTRICAL CHARACTERISTICS (T_{case} = 25 °C unless otherwise specified)

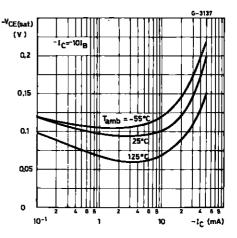
Symbol	ol Parameter Test Conditions		Min.	Тур.	Max.	Unit
I _{СВО}	Collector Cut-off Current ($I_E = 0$)	$V_{CE} = -100 V$ $V_{CE} = -100 V$ $T_{amb} = 125 \ ^{o}C$		-0.2 -0.03	-10 -10	nA μA
V(br)cbo*	Collector-Base Breakdown Voltage (I _E = 0)	I _C = -10 μA	-150			V
$V_{(\text{BR})\text{CEO}}*$	Collector-Emitter Breakdown Voltage (I _B = 0)	I _C = -2 mA	-150			V
V _{(BR)EBO} *	Emitter-Base Breakdown Voltage (I _C = 0)	I _E = -10 μA	-6			V
V _{CE(sat)} *	Collector-Emitter Saturation Voltage	I _C = -10 mA I _B = -1 mA		-0.1	-0.5	V
V _{BE(sat)*}	Base-Emitter Saturation Voltage	I _C = -10 mA I _B = -1 mA		-0.74	-0.9	V
h _{FE} *	DC Current Gain		40 40	85 100 30		
f⊤	Transition Frequency	V _{CE} = -10 V f = 20 MHz I _C = -1 mA I _C = -10 mA	60	50		MHz MHz
СЕВО	Emitter Base Capacitance	$I_{E} = 0 \qquad V_{EB} = -0.5 \text{ V} f = 1 \text{MHz}$		20	25	pF
Ссво	Collector Base Capacitance	$I_E = 0$ $V_{CB} = -5$ V $f = 1$ MHz		5	7	pF

* Pulsed: Pulse duration = $300 \,\mu$ s, duty cycle $\leq 1 \,\%$

DC Current Gain.

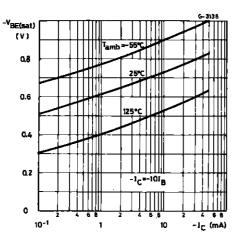


Collector-emitter Saturation Voltage.

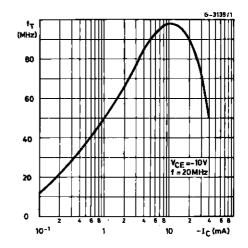




Base-emitter Saturation Voltage.



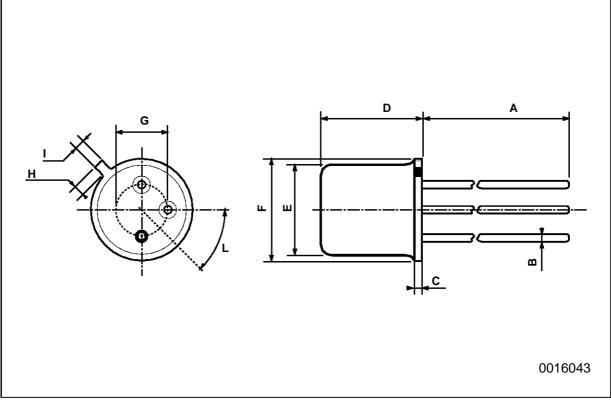
Transition Frequency.





TO-18 MECHANICAL DATA

DIM.	mm			inch			
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.	
А		12.7			0.500		
В			0.49			0.019	
D			5.3			0.208	
E			4.9			0.193	
F			5.8			0.228	
G	2.54			0.100			
н			1.2			0.047	
I			1.16			0.045	
L	45°			45°			





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