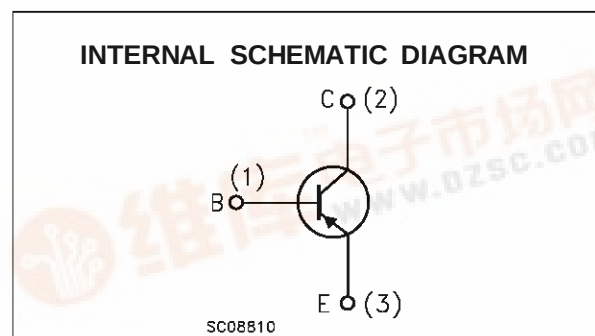
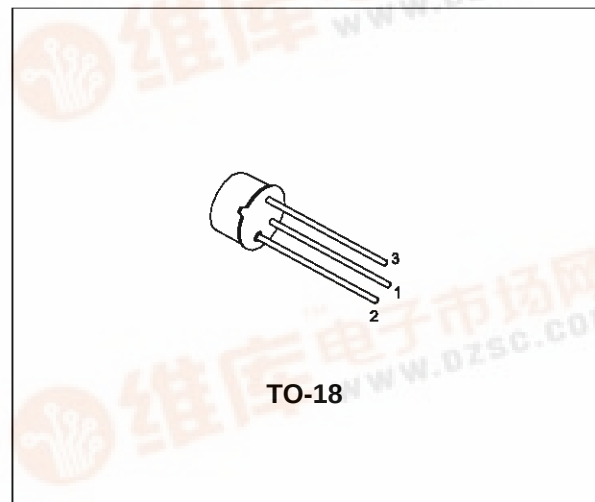


**BFW43****HIGH VOLTAGE AMPLIFIER****DESCRIPTION**

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_{CE0} of 150V are specified over a wide range of current.

**ABSOLUTE MAXIMUM RATINGS**

Symbol	Parameter	Value	Unit
V_{CBO}	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
I_C	Collector Current	-0.1	A
P_{tot}	Total Dissipation at $T_{amb} \leq 25^\circ\text{C}$ at $T_{case} \leq 25^\circ\text{C}$	0.4 1.4	W W
T_{stg}	Storage Temperature	-55 to 200	$^\circ\text{C}$
T_j	Max. Operating Junction Temperature	200	$^\circ\text{C}$

THERMAL DATA

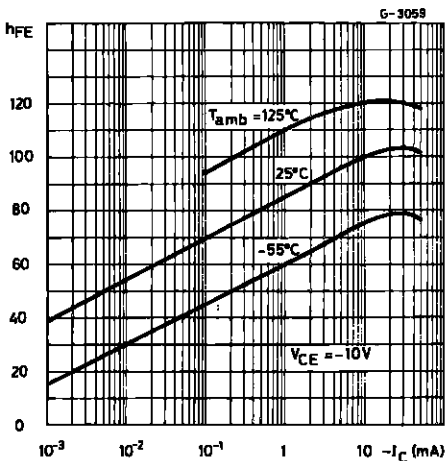
R _{thj-case}	Thermal Resistance Junction-Case	Max	125	°C/W
R _{thj-amb}	Thermal Resistance Junction-Ambient	Max	438	°C/W

ELECTRICAL CHARACTERISTICS ($T_{\text{case}} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)

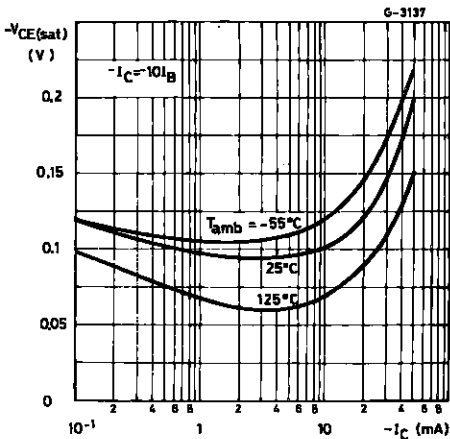
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{CBO}	Collector Cut-off Current ($I_{\text{E}} = 0$)	$V_{\text{CE}} = -100\text{ V}$ $V_{\text{CE}} = -100\text{ V}$ $T_{\text{amb}} = 125\text{ }^{\circ}\text{C}$		-0.2 -0.03	-10 -10	nA μA
$V_{(\text{BR})\text{CBO}}^*$	Collector-Base Breakdown Voltage ($I_{\text{E}} = 0$)	$I_{\text{C}} = -10\text{ }\mu\text{A}$	-150			V
$V_{(\text{BR})\text{CEO}}^*$	Collector-Emitter Breakdown Voltage ($I_{\text{B}} = 0$)	$I_{\text{C}} = -2\text{ mA}$	-150			V
$V_{(\text{BR})\text{EBO}}^*$	Emitter-Base Breakdown Voltage ($I_{\text{C}} = 0$)	$I_{\text{E}} = -10\text{ }\mu\text{A}$	-6			V
$V_{\text{CE(sat)}}^*$	Collector-Emitter Saturation Voltage	$I_{\text{C}} = -10\text{ mA}$ $I_{\text{B}} = -1\text{ mA}$		-0.1	-0.5	V
$V_{\text{BE(sat)}}^*$	Base-Emitter Saturation Voltage	$I_{\text{C}} = -10\text{ mA}$ $I_{\text{B}} = -1\text{ mA}$		-0.74	-0.9	V
h_{FE}^*	DC Current Gain	$I_{\text{C}} = -1\text{ mA}$ $V_{\text{CE}} = -10\text{ V}$ $I_{\text{C}} = -10\text{ mA}$ $V_{\text{CE}} = -10\text{ V}$ $I_{\text{C}} = -10\text{ }\mu\text{A}$ $V_{\text{CE}} = -10\text{ V}$ $T_{\text{amb}} = -55\text{ }^{\circ}\text{C}$	40 40	85 100 30		
f_{T}	Transition Frequency	$V_{\text{CE}} = -10\text{ V}$ $f = 20\text{ MHz}$ $I_{\text{C}} = -1\text{ mA}$ $I_{\text{C}} = -10\text{ mA}$	60	50		MHz MHz
C_{EBO}	Emitter Base Capacitance	$I_{\text{E}} = 0$ $V_{\text{EB}} = -0.5\text{ V}$ $f = 1\text{ MHz}$		20	25	pF
C_{CBO}	Collector Base Capacitance	$I_{\text{E}} = 0$ $V_{\text{CB}} = -5\text{ V}$ $f = 1\text{ MHz}$		5	7	pF

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

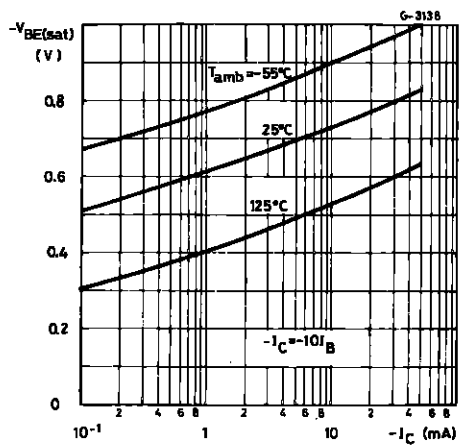
DC Current Gain.



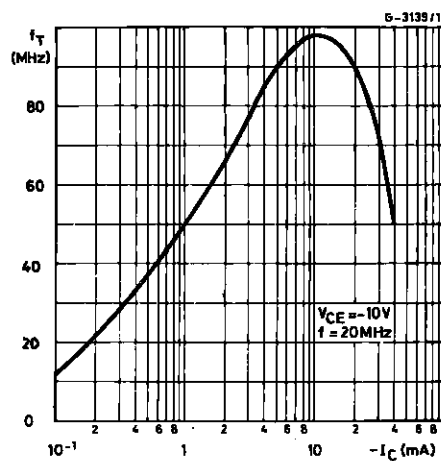
Collector-emitter Saturation Voltage.



Base-emitter Saturation Voltage.

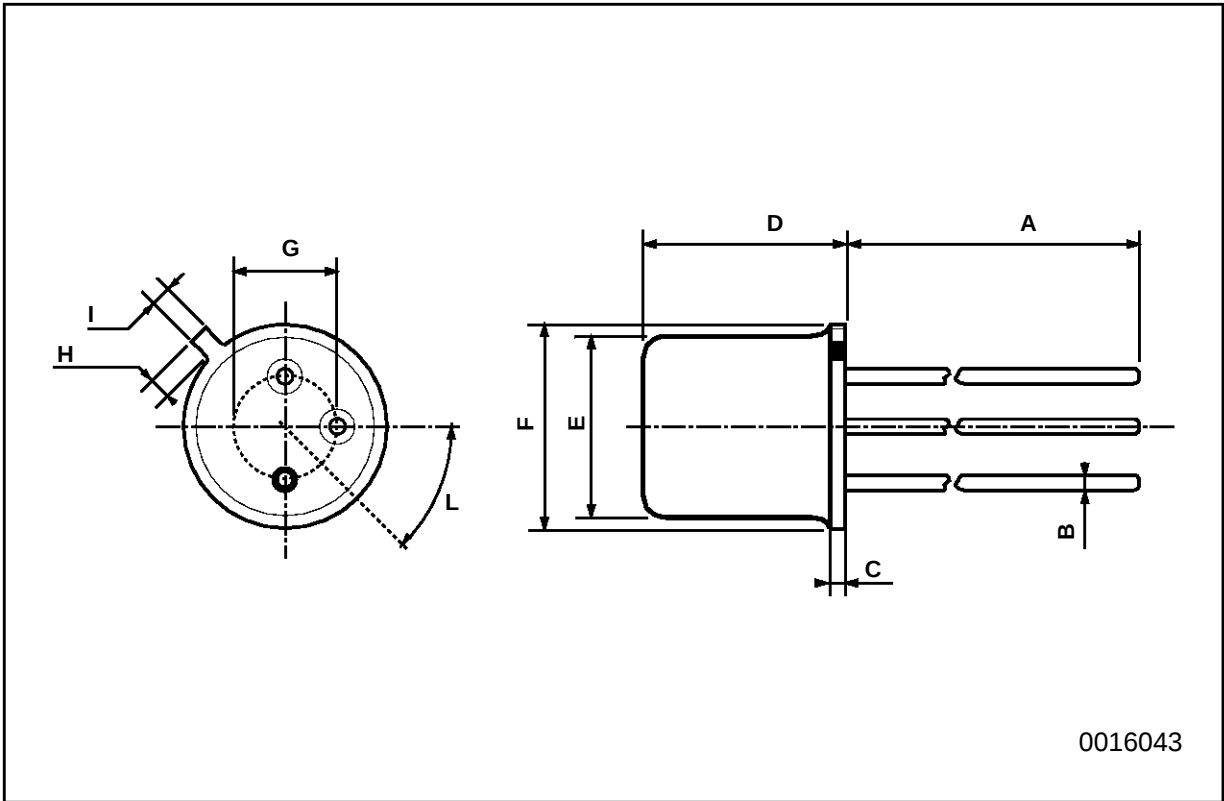


Transition Frequency.



TO-18 MECHANICAL DATA

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



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