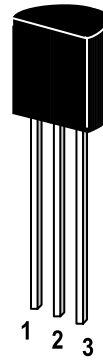


ST 9018

NPN Silicon Epitaxial Planar Transistor
for AM/FM amplifier and local oscillator of FM/VHF tuner applications.

The transistor is subdivided into six groups, D, E, F, G, H and I, according to its DC current gain.

On special request, these transistors can be manufactured in different pin configurations.



1. Emitter 2. Base 3. Collector

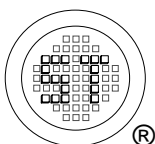
TO-92 Plastic Package

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CB0}	30	V
Collector Emitter Voltage	V_{CEO}	15	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	50	mA
Power Dissipation	P_{tot}	400	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_s	-55 to +150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $V_{CE} = 5\text{ V}$, $I_C = 1\text{ mA}$ Current Gain Group	D	h_{FE}	28	-	45	-
	E	h_{FE}	39	-	60	-
	F	h_{FE}	54	-	80	-
	G	h_{FE}	72	-	108	-
	H	h_{FE}	97	-	146	-
	I	h_{FE}	132	-	198	-
Collector Base Breakdown Voltage at $I_C = 100\ \mu\text{A}$	$V_{(BR)CB0}$	30	-	-	V	
Collector Emitter Breakdown Voltage at $I_C = 1\text{ mA}$	$V_{(BR)CEO}$	15	-	-	V	
Emitter Base Breakdown Voltage at $I_E = 100\ \mu\text{A}$	$V_{(BR)EBO}$	5	-	-	V	
Collector Cutoff Current at $V_{CB} = 12\text{ V}$	I_{CB0}	-	-	50	nA	
Collector Emitter Saturation Voltage at $I_C = 10\text{ mA}$, $I_B = 1\text{ mA}$	$V_{CE(sat)}$	-	-	0.5	V	
Collector Base Capacitance at $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{CB0}	-	1.3	1.7	pF	
Gain Bandwidth Product at $V_{CE} = 5\text{ V}$, $I_C = 5\text{ mA}$	f_T	700	1100	-	MHz	



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



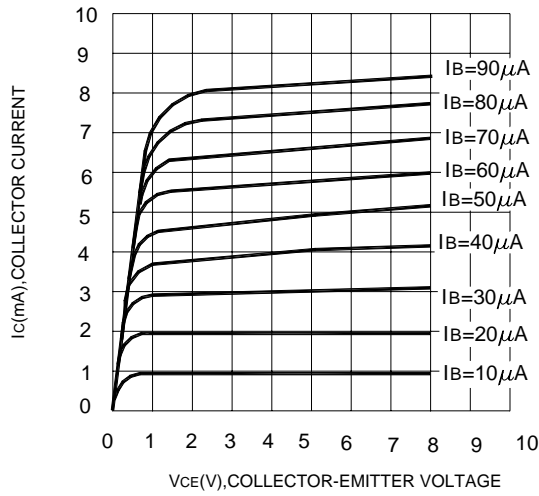
ISO 14001:2004
Certificate No. 71116



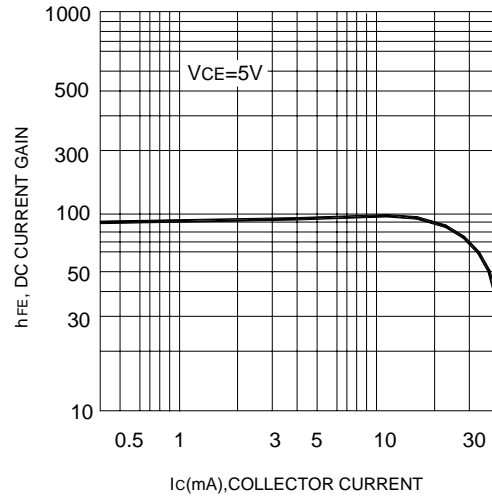
ISO 9001:2000
Certificate No. 0500098

Dated : 23/12/2005

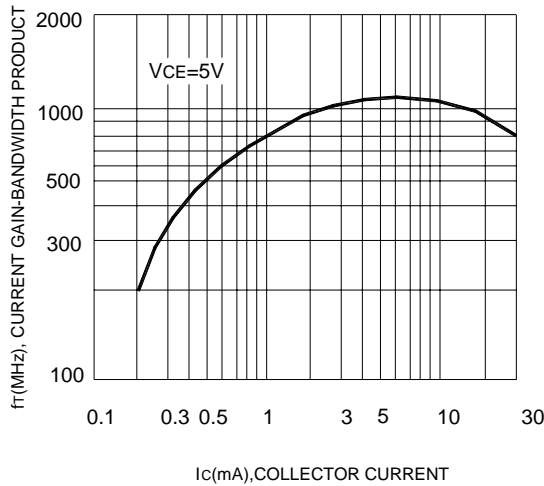
STATIC CHARACTERISTIC



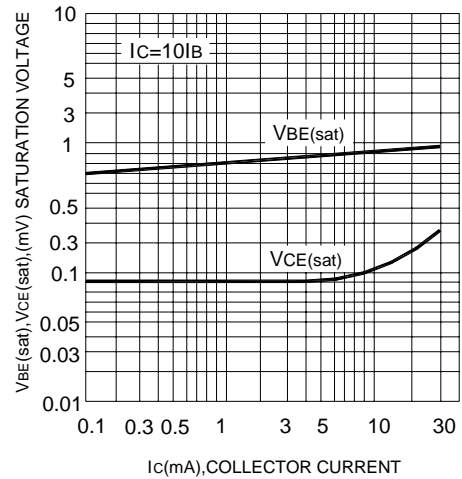
DC CURRENT GAIN



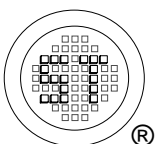
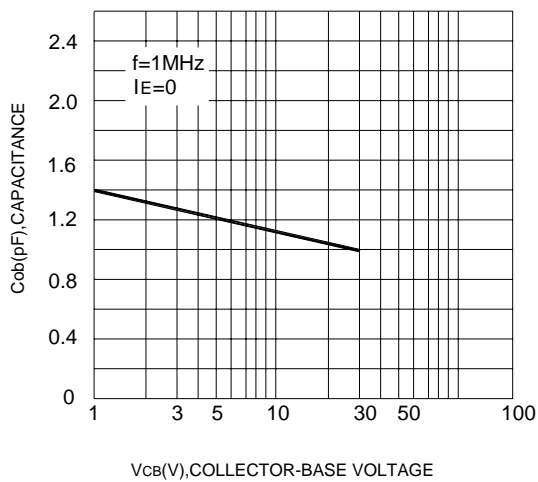
CURRENT GAIN-BANDWIDTH PRODUCT



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



OUTPUT CAPACITANCE



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ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



ISO 9001:2000
Certificate No. 0506098

Dated : 23/12/2005