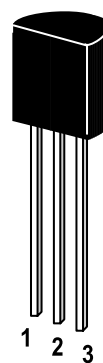


NPN Silicon Epitaxial Planar Transistor
for AM/FM amplifier and local oscillator of
FM/VHF tuner applications.

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

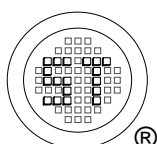
TO-92 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	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	$^\circ\text{C}$

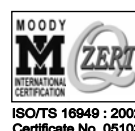
Characteristics at $T_a = 25^\circ\text{C}$

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



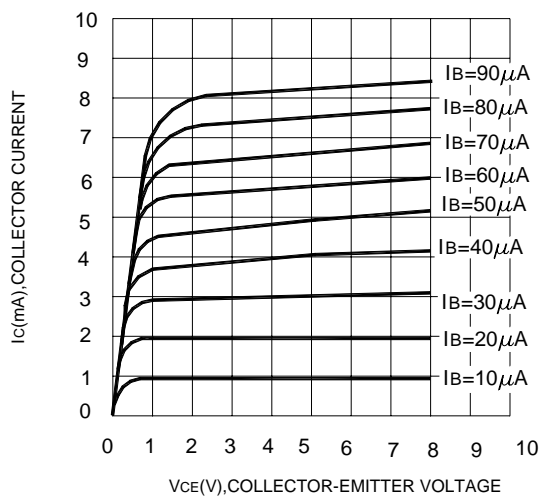
SEMTECH ELECTRONICS LTD.

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

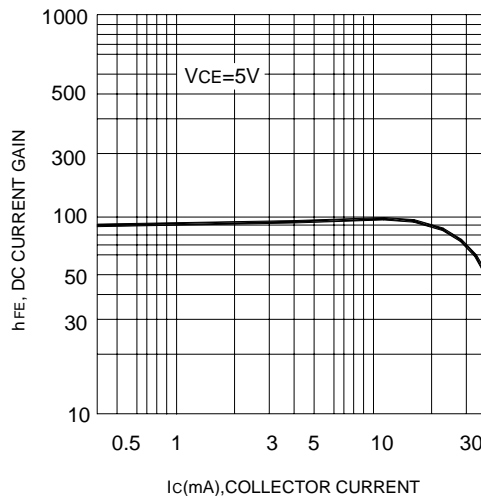


Dated : 23/12/2005

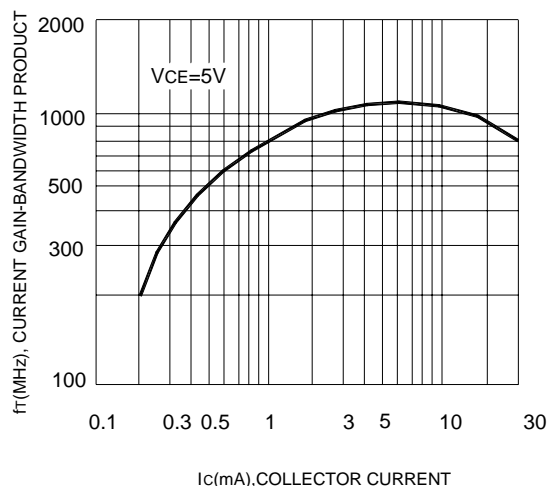
STATIC CHARACTERISTIC



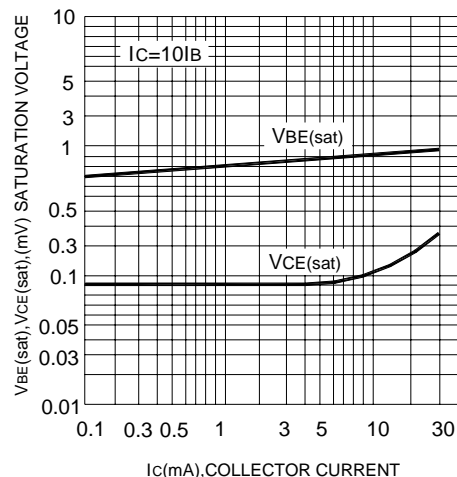
DC CURRENT GAIN



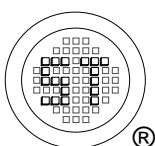
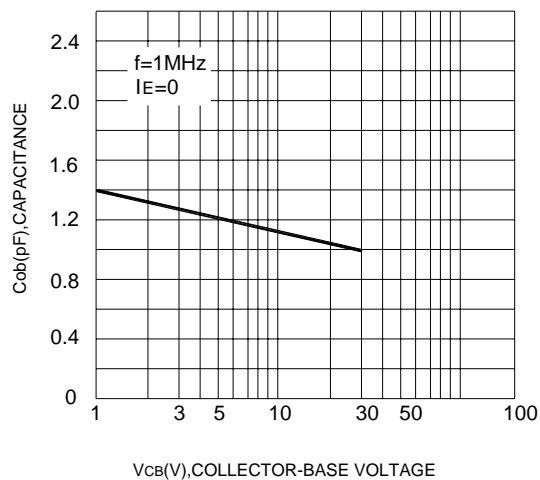
CURRENT GAIN-BANDWIDTH PRODUCT



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. 05104



ISO 9001:2000
Certificate No. 05105

Dated : 23/12/2005