

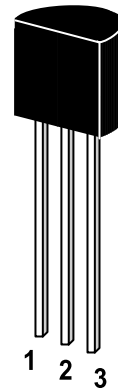
ST 2SC1359

NPN Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

The transistor is subdivided into one group, according to its DC current gain.

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



1. Emitter 2. Collector 3. Base

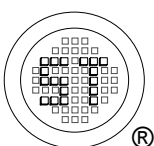
TO-92 Plastic Package
Weight approx. 0.19g

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}	20	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_{C}	100	mA
Power Dissipation	P_{tot}	250	mW
Junction Temperature	T_{j}	150	$^\circ\text{C}$
Storage Temperature Range	T_{s}	-55 to +150	$^\circ\text{C}$

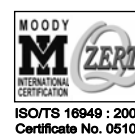
Characteristics at $T_{\text{amb}} = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{\text{CE}}=6\text{V}$, $I_{\text{C}}=1\text{mA}$	h_{FE}	150	-	650	-
Collector Base Breakdown Voltage at $I_{\text{C}}=100\mu\text{A}$	$V_{\text{(BR)CBO}}$	30	-	-	V
Collector Emitter Breakdown Voltage at $I_{\text{C}}=10\text{mA}$	$V_{\text{(BR)CEO}}$	20	-	-	V
Emitter Base Breakdown Voltage at $I_{\text{E}}=10\mu\text{A}$	$V_{\text{(BR)EBO}}$	5	-	-	V
Collector Cutoff Current at $V_{\text{CB}}=30\text{V}$	I_{CBO}	-	-	0.1	μA
Emitter Cutoff Current at $V_{\text{EB}}=3\text{V}$	I_{EBO}	-	-	0.1	μA
Collector Saturation Voltage at $I_{\text{C}}=100\text{mA}$, $I_{\text{B}}=10\text{mA}$	$V_{\text{CE(sat)}}$	-	-	0.3	V
Gain Bandwidth Product at $V_{\text{CE}}=6\text{V}$, $I_{\text{C}}=10\text{mA}$	f_{T}	-	125	-	MHz
Output Capacitance at $V_{\text{CB}}=6\text{V}$, $f=1\text{MHz}$	C_{OB}	-	1.8	-	pF
Noise Figure at $V_{\text{CE}}=6\text{V}$, $I_{\text{E}}=0.5\text{mA}$, $f=1\text{KHz}$, $R_{\text{S}}=500\Omega$	NF	-	4	-	dB



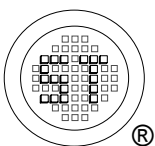
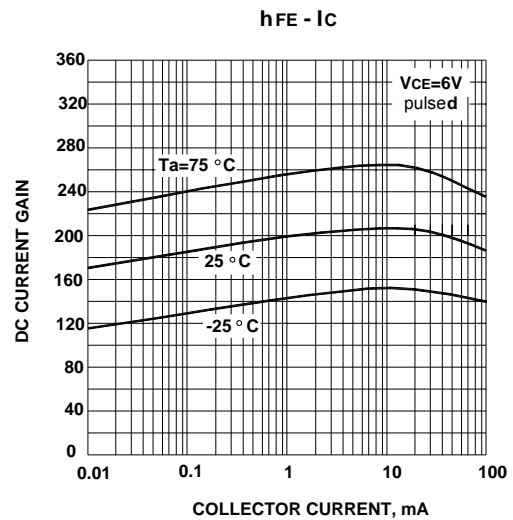
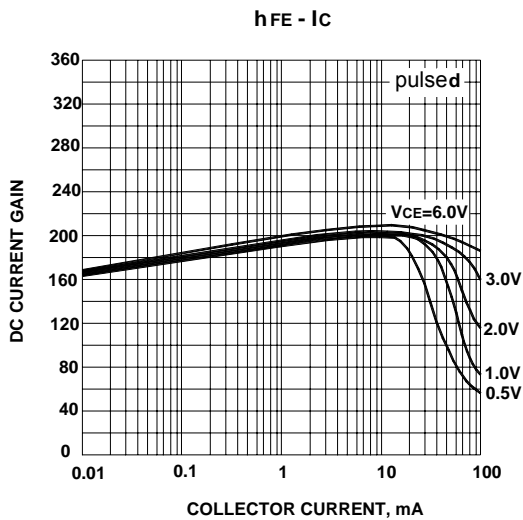
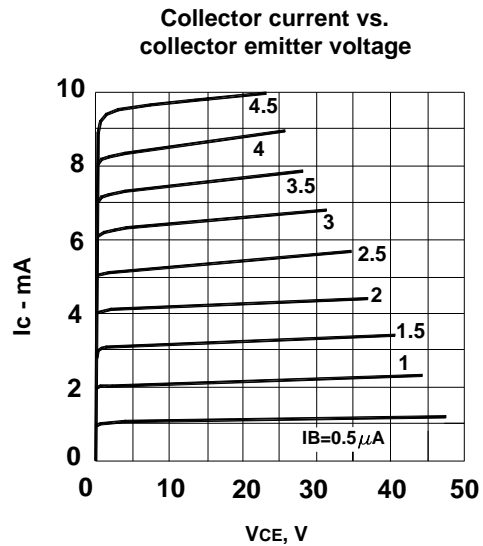
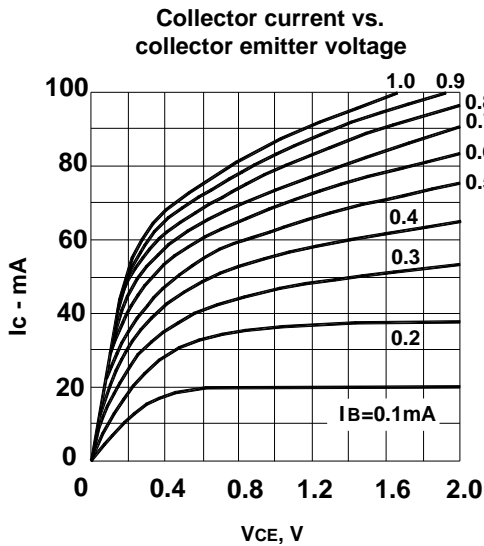
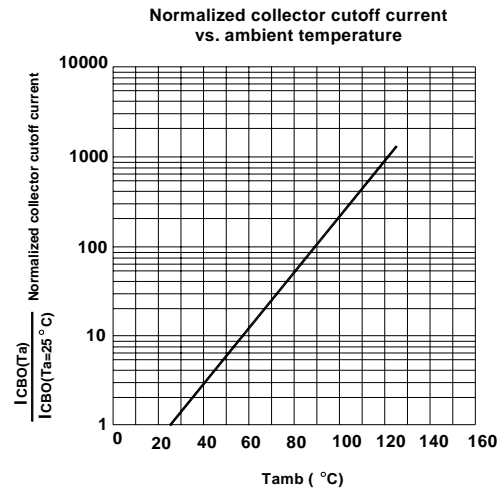
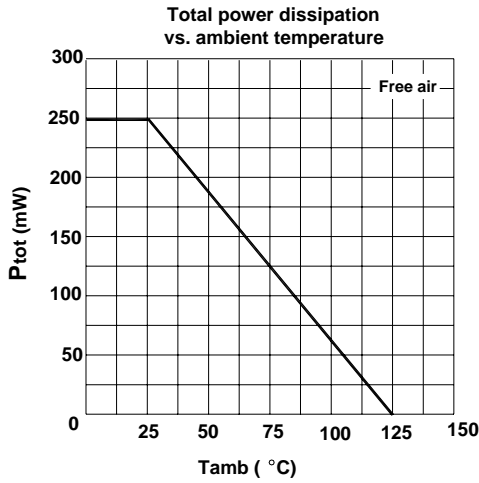
SEMTECH ELECTRONICS LTD.

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



Dated : 02/12/2005

ST 2SC1359



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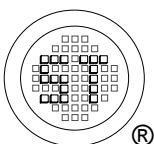
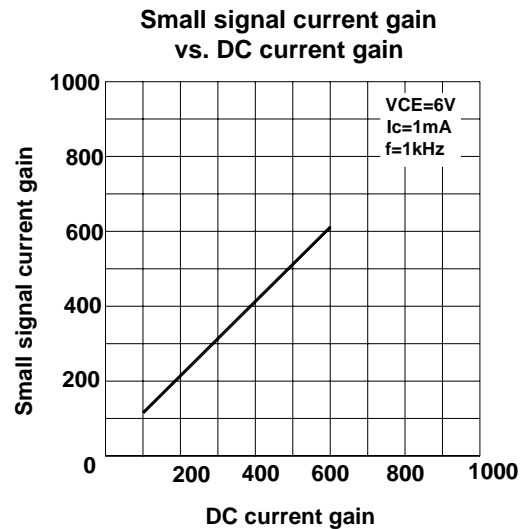
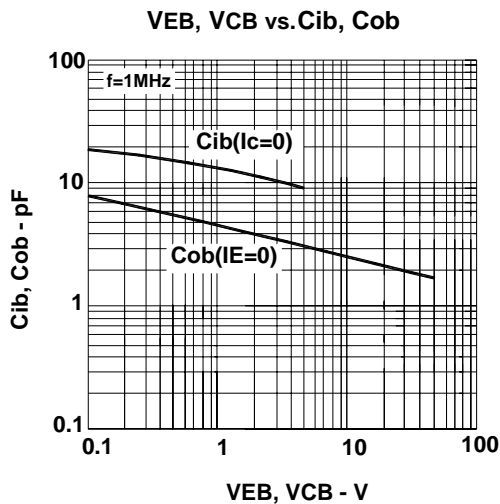
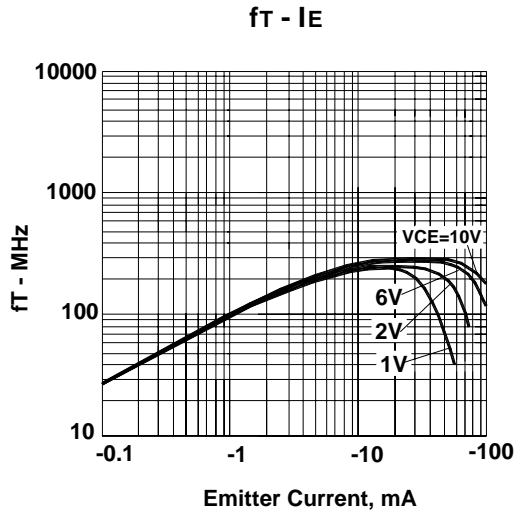
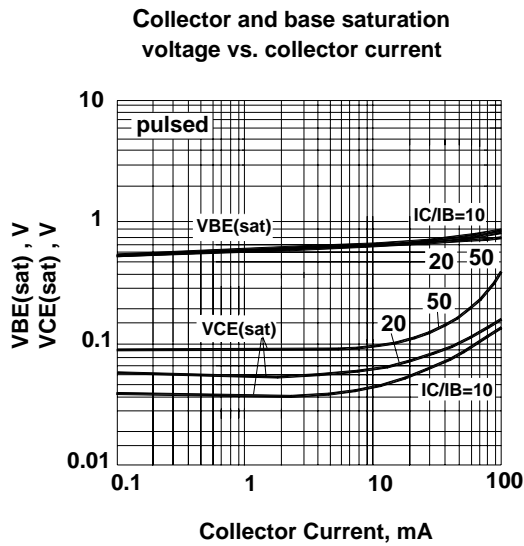
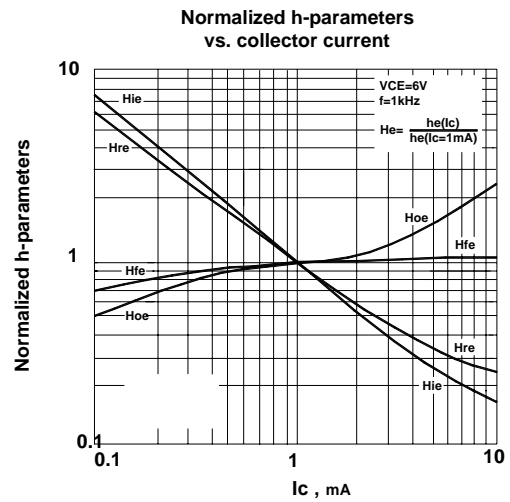
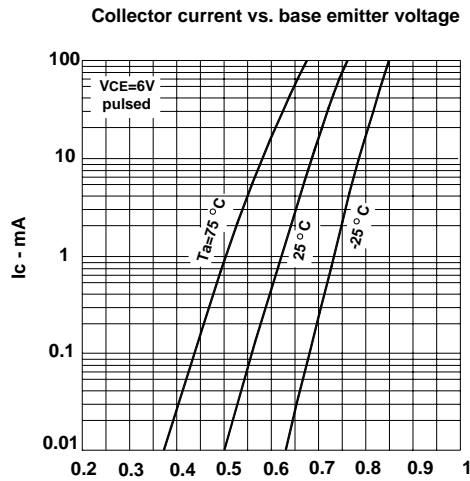
ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



ISO 9001:2000
Certificate No. 0506098



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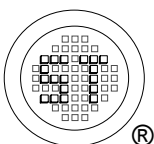
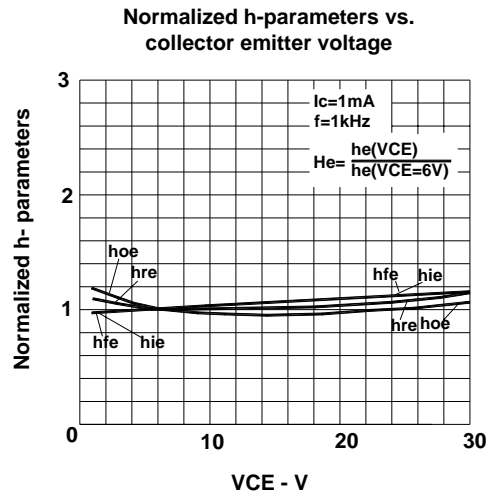
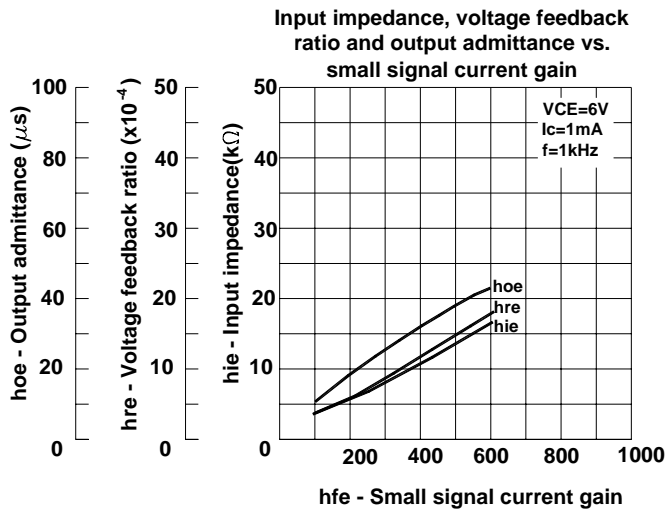
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Certificate No. 71116



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