

ST 2SC1359

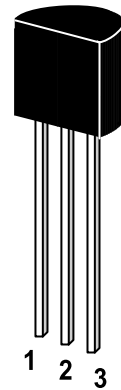
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NPN Silicon Epitaxial Planar Transistor

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

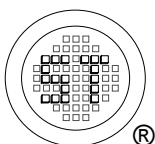
TO-92 Plastic Package
Weight approx. 0.19g

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



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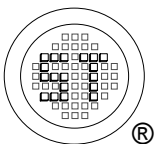
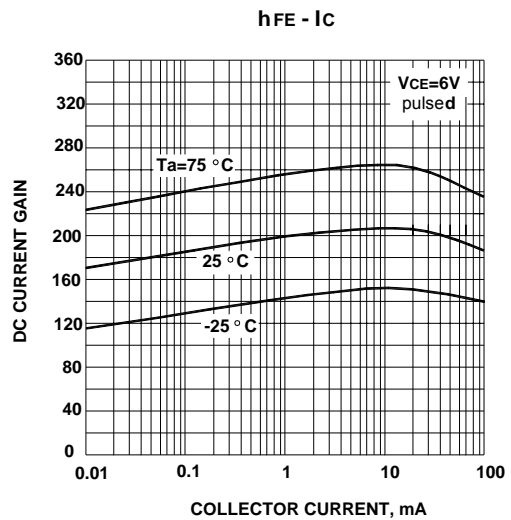
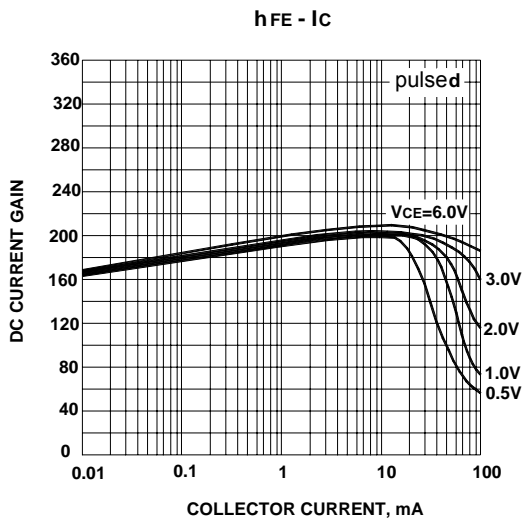
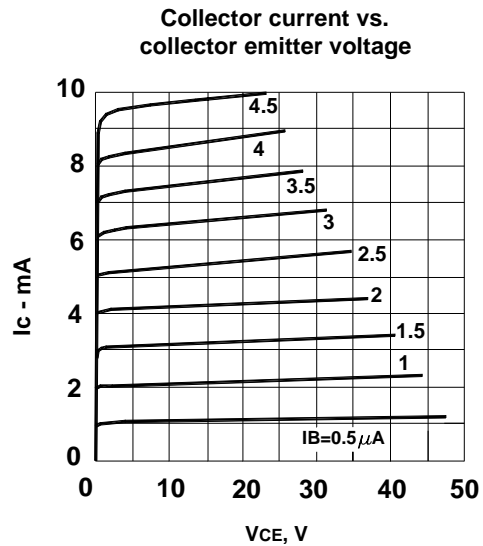
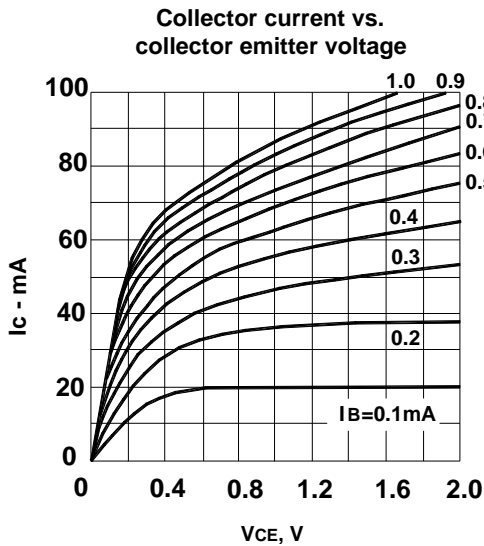
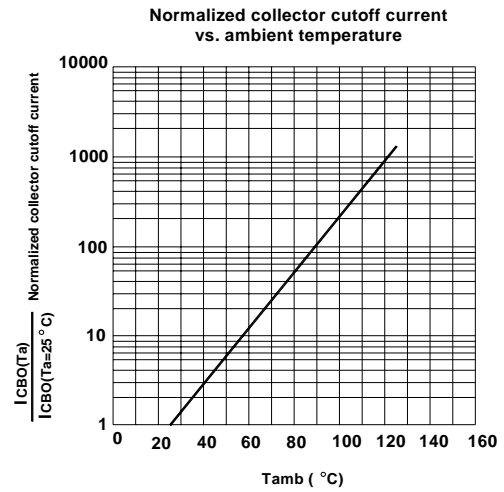
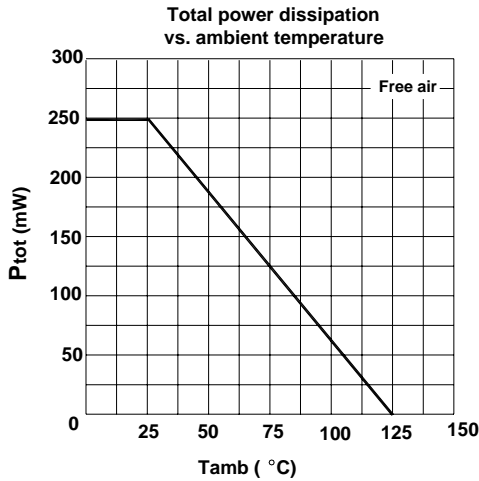
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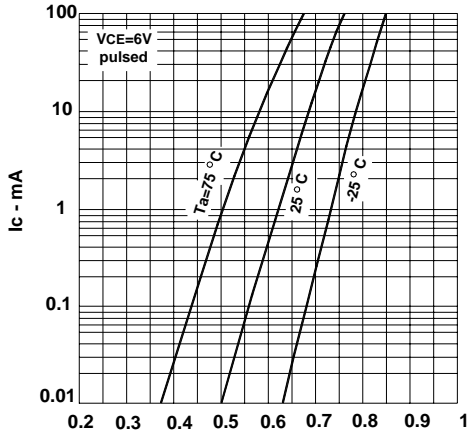
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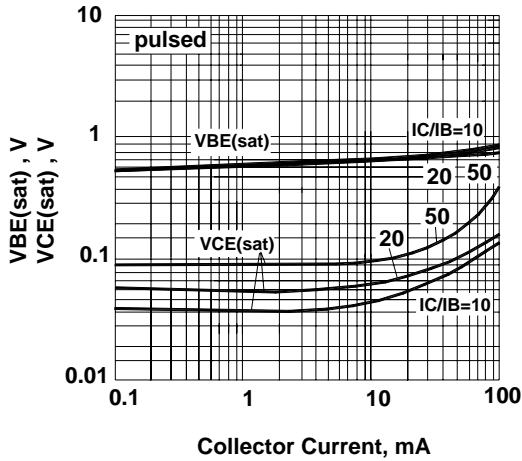
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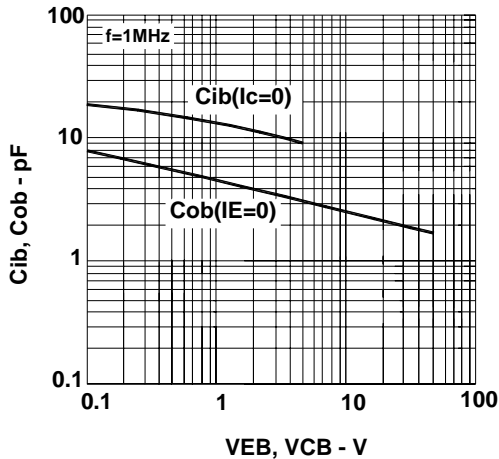
Collector current vs. base emitter voltage



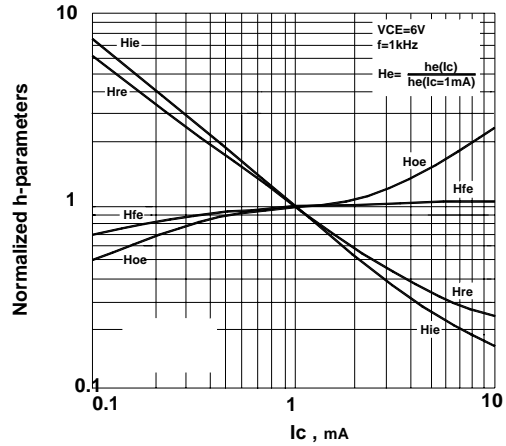
Collector and base saturation voltage vs. collector current



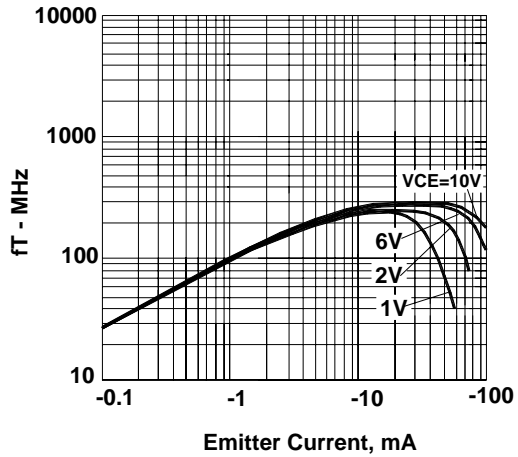
V_{EB} , V_{CB} vs. C_{ib} , C_{ob}



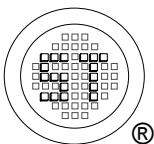
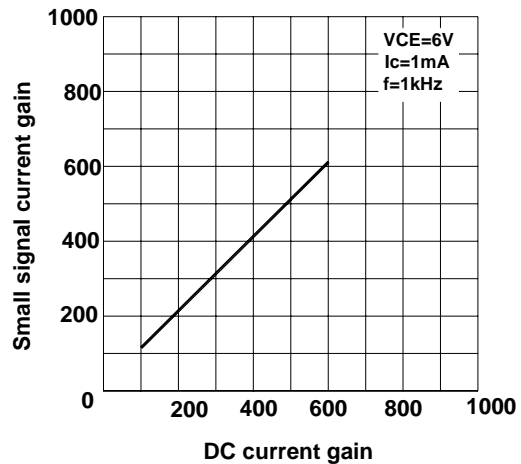
Normalized h-parameters vs. collector current



$f_T - I_E$



Small signal current gain vs. DC current gain



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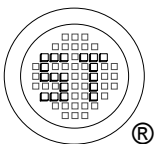
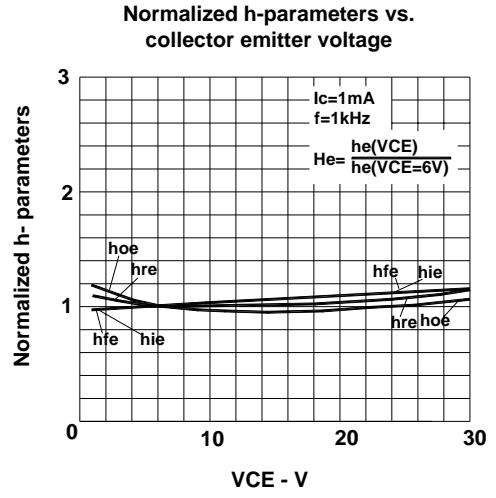
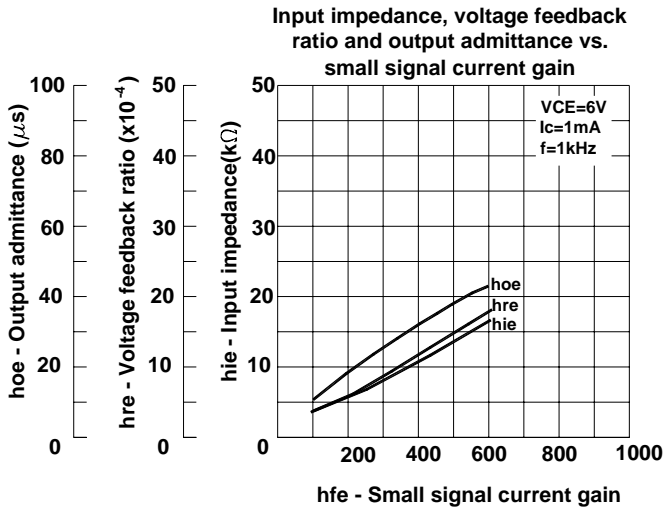


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