



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

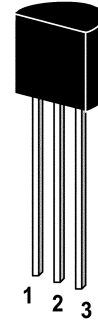
ST 2N5088 / 2N5089

NPN Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

The transistor is subdivided into one group according to its DC current gain. As complementary type the PNP transistor ST 2N5086 and ST 2N5087 are recommended.

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

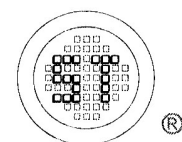


1. Emitter 2. Base 3. Collector

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}	35	V
Collector Emitter Voltage	V_{CEO}	30	V
Emitter Base Voltage	V_{EBO}	4.5	V
Collector Current	I_C	50	mA
Power Dissipation	P_{tot}	500	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_s	-55 to +150	$^\circ\text{C}$



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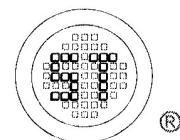
Dated : 02/12/2005

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ST 2N5088 / 2N5089**Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$**

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain						
at $V_{CE}=5V, I_C=0.1mA$	ST 2N5088	h_{FE}	300	-	900	-
	ST 2N5089	h_{FE}	400	-	1200	-
at $V_{CE}=5V, I_C=1mA$	ST 2N5088	h_{FE}	300	-	-	-
	ST 2N5089	h_{FE}	400	-	-	-
at $V_{CE}=5V, I_C=10mA$	ST 2N5088	h_{FE}	300	-	-	-
	ST 2N5089	h_{FE}	400	-	-	-
Collector Base Breakdown Voltage at $I_C=100\mu A$	$V_{(BR)CBO}$	35	-	-	V	
Collector Emitter Breakdown Voltage at $I_C=1mA$	$V_{(BR)CEO}$	30	-	-	V	
Emitter Base Breakdown Voltage at $I_E=10\mu A$	$V_{(BR)EBO}$	4.5	-	-	V	
Collector Cutoff Current at $V_{CB}=35V$	I_{CBO}	-	-	0.05	μA	
Emitter Cutoff Current at $V_{EB}=4.5V$	I_{EBO}	-	-	0.05	μA	
Collector Saturation Voltage at $I_C=10mA, I_B=1mA$	$V_{CE(sat)}$	-	-	0.5	V	
Base Emitter Voltage at $V_{CE}=5V, I_C=10mA$	$V_{BE(on)}$	-	-	0.8	V	
Gain Bandwidth Product at $V_{CE}=5V, I_C=0.5mA$	f_T	50	180	-	MHz	
Output Capacitance at $V_{CB}=10V, f=1MHz$	C_{OB}	-	-	4	pF	
Noise Figure at $V_{CE}=6V, I_C=0.3mA, f=100Hz, R_S=10K\Omega$	NF	-	-	3	dB	

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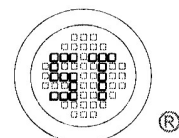
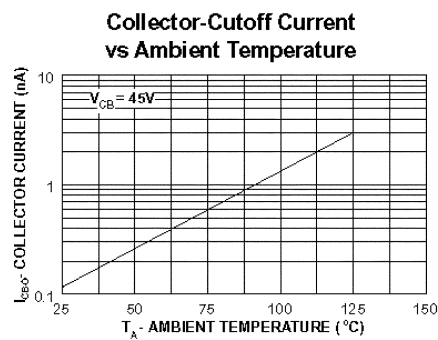
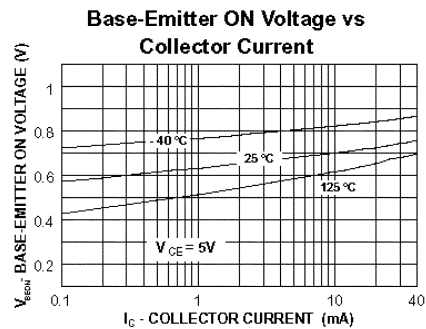
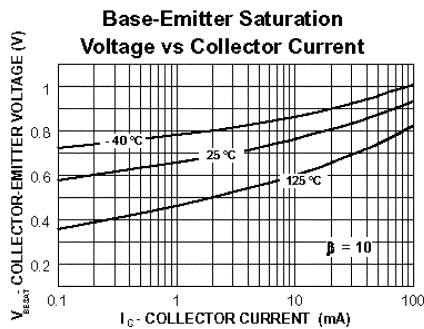
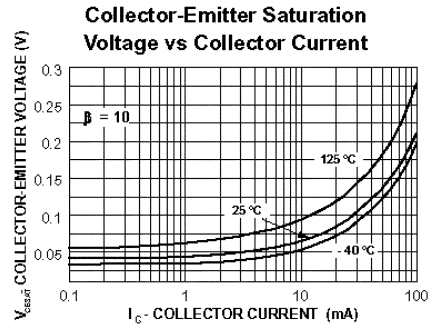
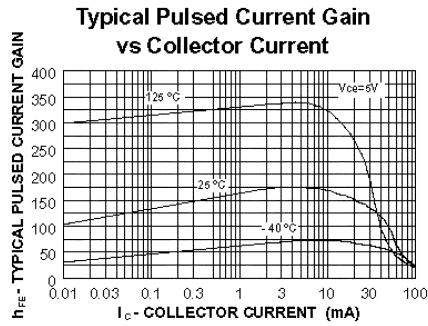
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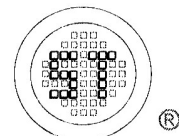
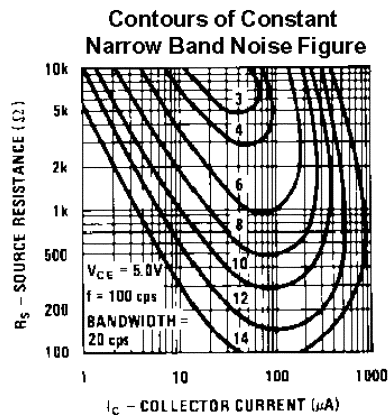
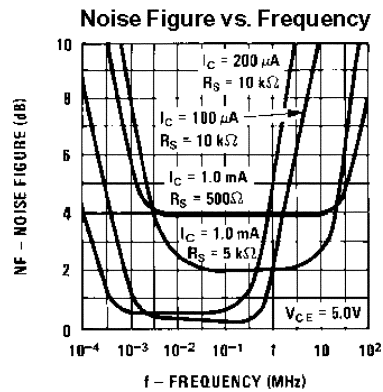
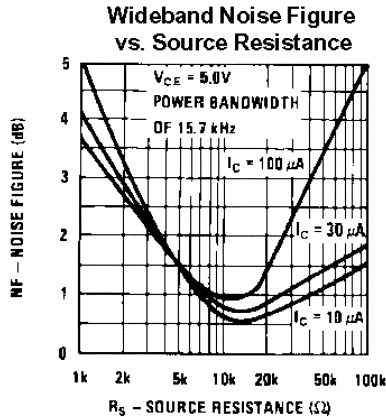
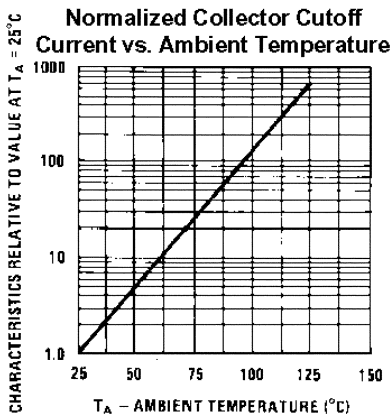
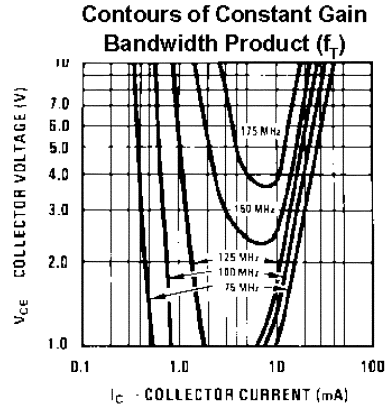
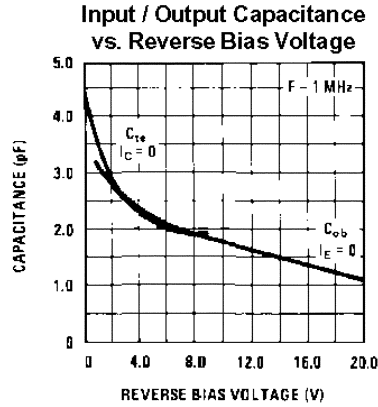
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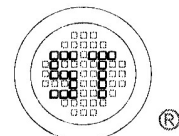
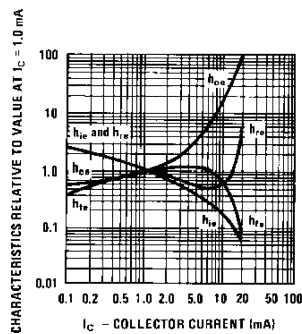
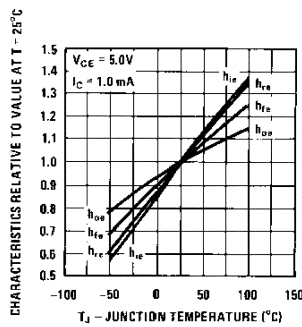
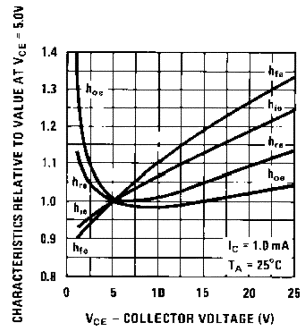
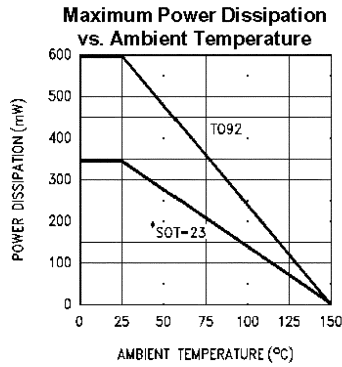
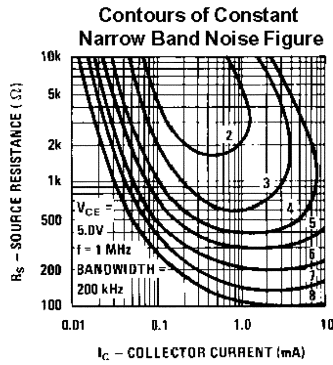
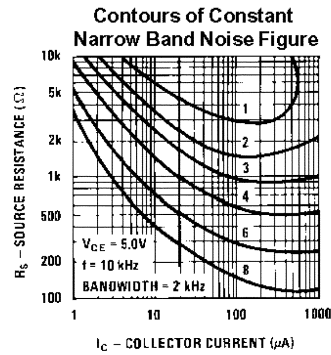
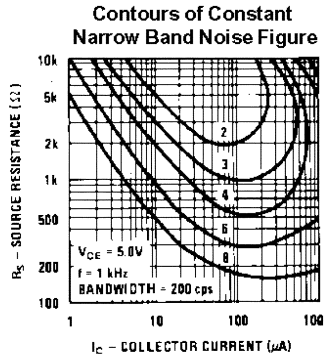


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