

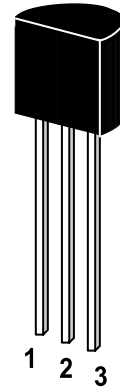
# ST 2SA733

## PNP Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

The transistor is subdivided into five groups, R, O, Y, P and L, according to its DC current gain. As complementary type the NPN transistor ST 2SC945 is recommended.

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

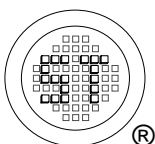


1. Emitter 2. Collector 3. Base

TO-92 Plastic Package  
Weight approx. 0.19g

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

	Symbol	Value	Unit
Collector Base Voltage	$-V_{\text{CBO}}$	60	V
Collector Emitter Voltage	$-V_{\text{CEO}}$	50	V
Emitter Base Voltage	$-V_{\text{EBO}}$	5	V
Collector Current	$-I_{\text{C}}$	150	mA
Power Dissipation	$P_{\text{tot}}$	250	mW
Junction Temperature	$T_{\text{j}}$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{\text{s}}$	-55 to +150	$^\circ\text{C}$



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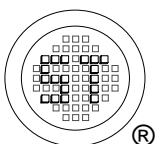


Dated : 12/07/2002

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

	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $-V_{CE}=6\text{V}$ , $-I_C=1\text{mA}$  Current Gain Group	R	$h_{FE}$	40	-	80	-
	O	$h_{FE}$	70	-	140	-
	Y	$h_{FE}$	120	-	240	-
	P	$h_{FE}$	200	-	400	-
	L	$h_{FE}$	350	-	700	-
Collector Base Breakdown Voltage at $-I_C=100\mu\text{A}$	$-V_{(BR)CBO}$	60	-	-	V	
Collector Emitter Breakdown Voltage at $-I_C=10\text{mA}$	$-V_{(BR)CEO}$	50	-	-	V	
Emitter Base Breakdown Voltage at $-I_E=10\mu\text{A}$	$-V_{(BR)EBO}$	5	-	-	V	
Collector Cutoff Current at $-V_{CB}=60\text{V}$	$-I_{CBO}$	-	-	0.1	$\mu\text{A}$	
Emitter Cutoff Current at $-V_{EB}=5\text{V}$	$-I_{EBO}$	-	-	0.1	$\mu\text{A}$	
Collector Saturation Voltage at $-I_C=100\text{mA}$ , $-I_B=10\text{mA}$	$-V_{CE(sat)}$	-	0.18	0.3	V	
Base Emitter Voltage at $-V_{CE}=6\text{V}$ , $-I_C=1\text{mA}$	$-V_{BE(on)}$	0.5	0.62	0.8	V	
Gain Bandwidth Product at $-V_{CE}=6\text{V}$ , $-I_C=10\text{mA}$	$f_T$	50	180	-	MHz	
Output Capacitance at $-V_{CB}=10\text{V}$ , $f=1\text{MHz}$	$C_{OB}$	-	2.8	-	pF	
Noise Figure at $-V_{CE}=6\text{V}$ , $-I_C=0.3\text{mA}$ $f=100\text{Hz}$ , $R_S=10\text{K}\Omega$	F	-	6	20	dB	



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ISO/TS 16949 : 2002  
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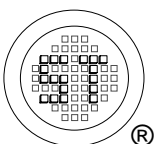
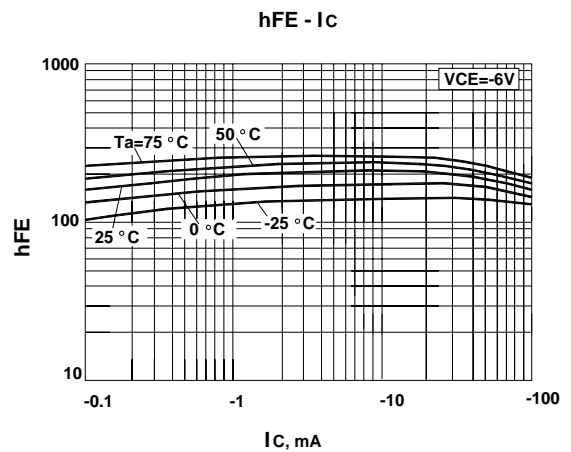
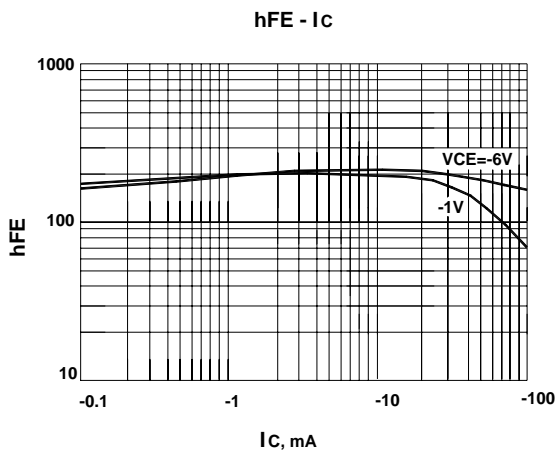
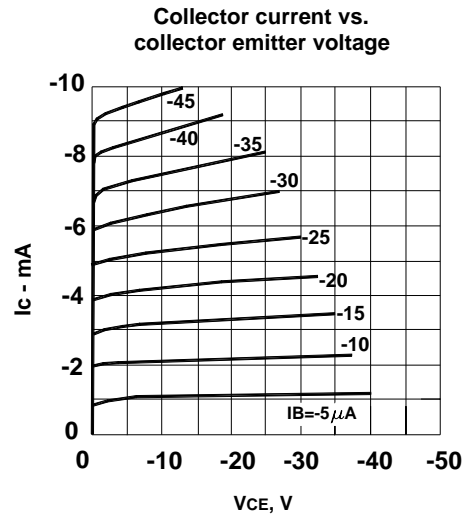
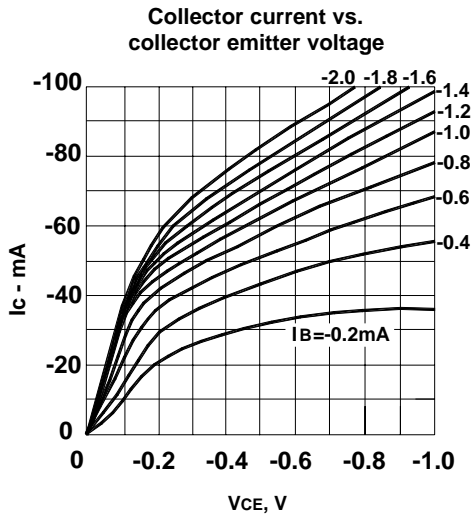
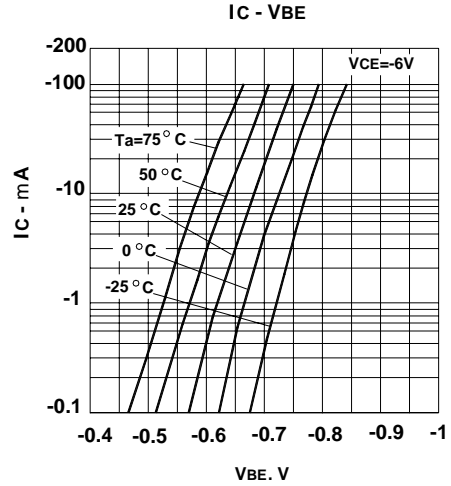
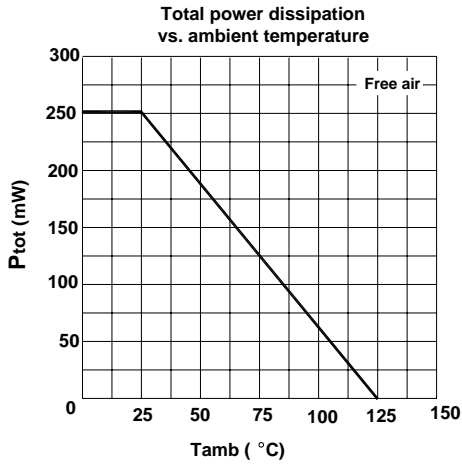
ISO 14001:2004  
Certificate No. 7116



ISO 9001:2000  
Certificate No. 0506098

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ISO 14001:2004  
Certificate No. 71116

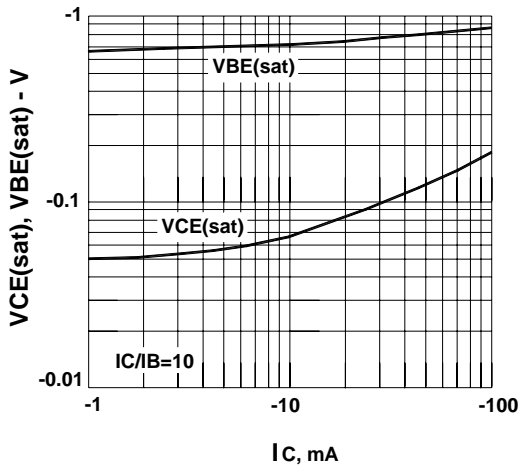


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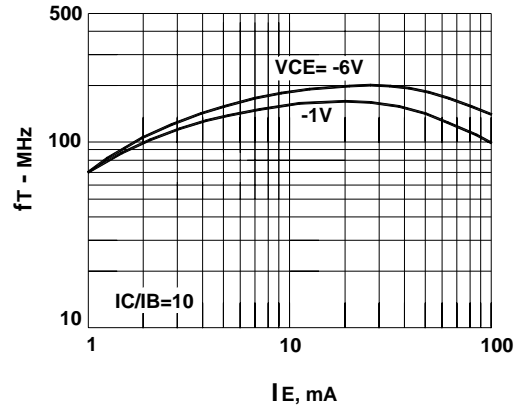
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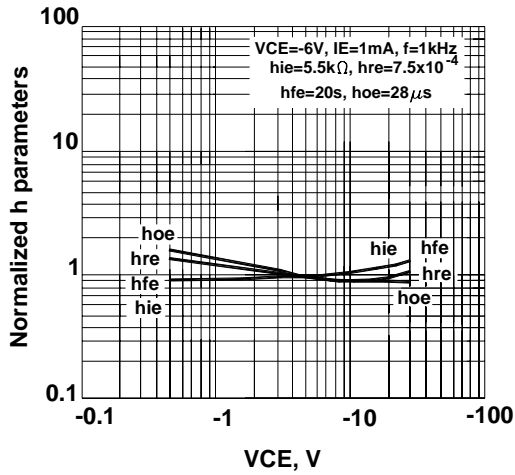
VCE(sat), VBE(sat) - I<sub>C</sub>



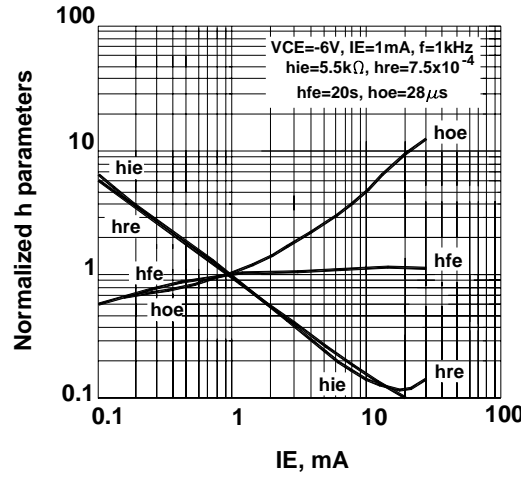
f<sub>T</sub> - I<sub>E</sub>



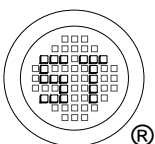
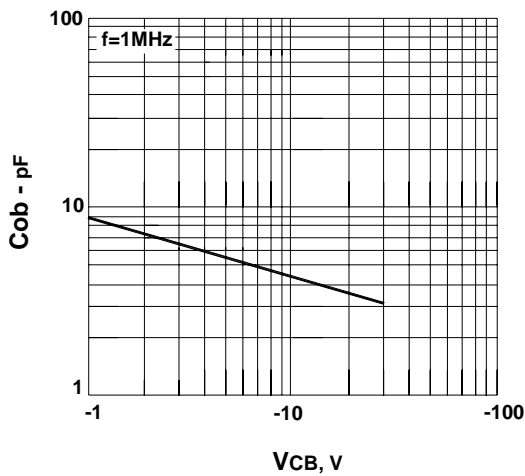
Normalized h-parameters vs. collector emitter voltage



Normalized h-parameters vs. emitter current



C<sub>ob</sub> - V<sub>CB</sub>



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