M28S

NPN SILICON EPITAXIAL PLANAR TRANSISTOR

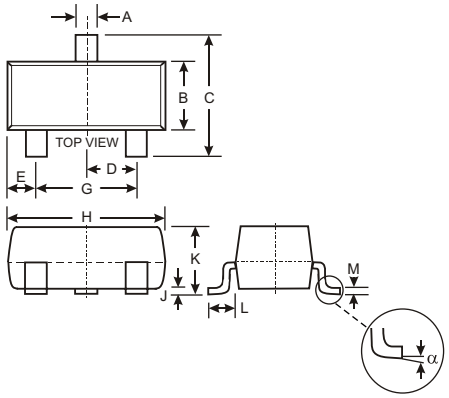
Features

- Excellent H_{FE} Linearity.
- High DC current gain.

Mechanical Data

- Case: SOT-23, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagrams
- Approx. Weight: 0.008 grams

RoHS COMPLIANT



SOT-23		
Dim	**Min**	**Max**
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.085	0.180
α	0°	8°
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

Parameter	Symbol	Value	Units
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	20	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current -Continuous	I_C	1000	mA
Collector Power Dissipation	P_C	200	mW
Junction and Storage Temperature	T_j, T_{stg}	-55~150	℃

Electrical Characteristics T_A = 25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA,I_C=0	6			V
Collector cut-off current	I_{CBO}	V_{CB}=35V,I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V,I_C=0			0.1	μA
DC current gain	h_{FE}	V_{CE}=1V,I_C=1mA V_{CE}=1V,I_C=0.1A V_{CE}=1V,I_C=0.3A V_{CE}=1V,I_C=0.5A	290 300 300 300		1000	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=600mA, I_B=20mA			0.55	V
Transition frequency	f_T	V_{CE}=10V, I_C=50mA	100			MHz
Collector output capacitance	C_{ob}	V_{CB}=10V,I_E=0,f=1MHz		9		pF

Rank	B	C	D
Range	300-550	500-700	650-1000

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

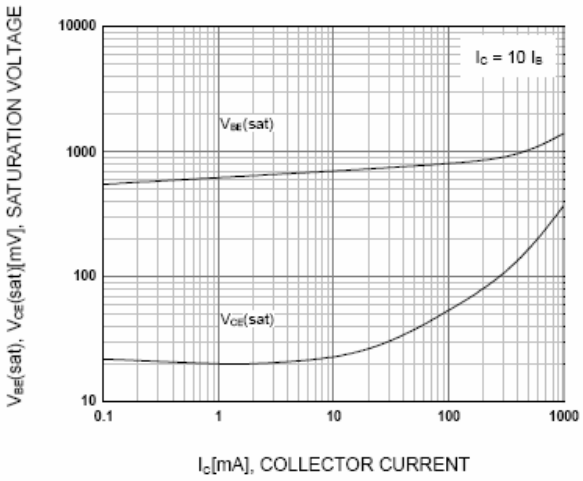


Figure 1. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

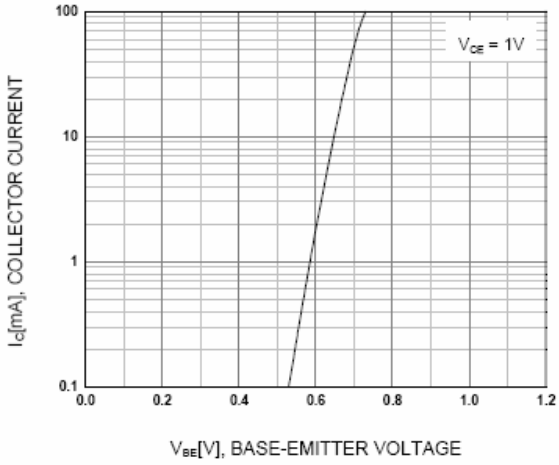


Figure 2. Base-Emitter On Voltage

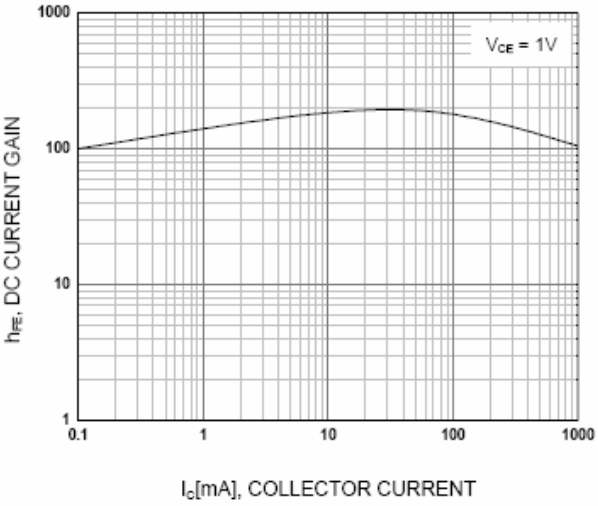


Figure 3. DC current Gain