



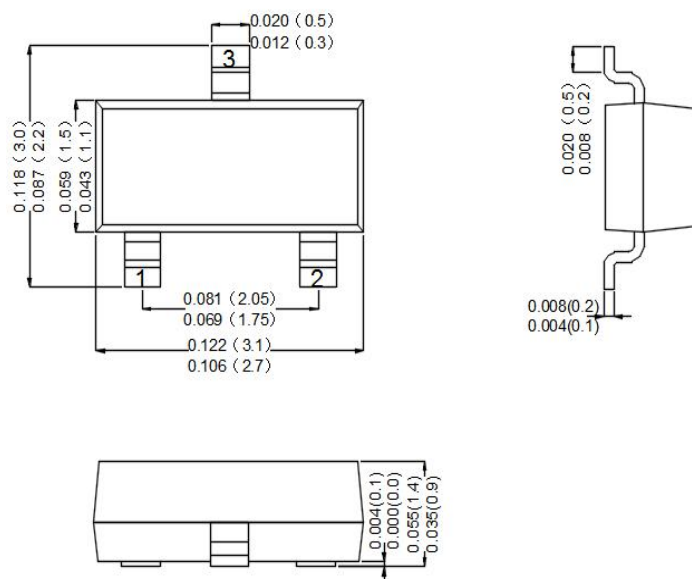
Features

- Excellent h_{FE} Linearity
- High DC Current Gain

SOT-23

Mechanical Data

- Case: Molded Plastic, SOT-23
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Plated Leads Solderable per MIL-STD-750, Method-2026.
- Marking: 28S
- Mounting Position : Any.
- Equivalent Circuit:



Dimensions in inches and (millimeters)

Maximum Ratings Maximum Ratings (Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	20	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	1	mA
Collector Power Dissipation	P_C	200	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	625	°C/W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55~+150	°C

**Electrical Characteristics** (Rating at 25°C ambient temperature unless otherwise specified.)

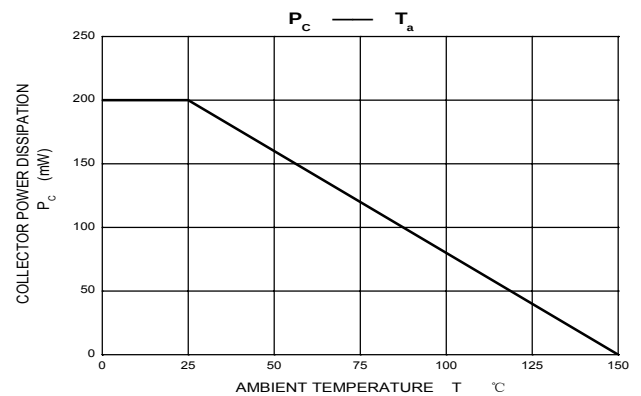
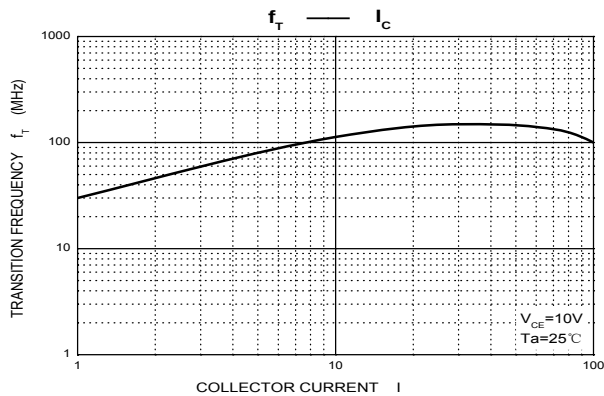
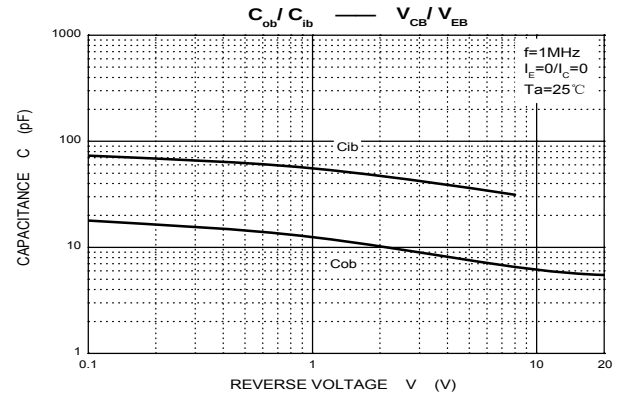
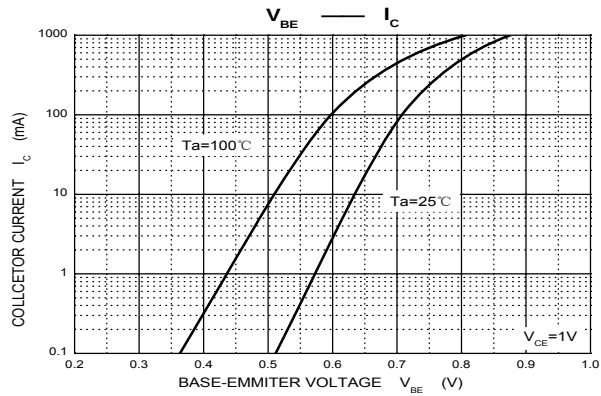
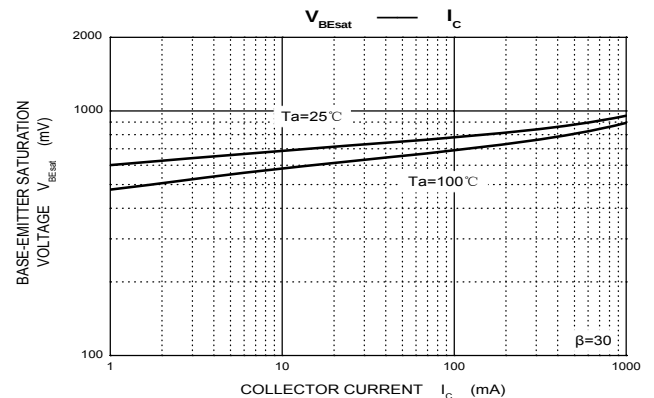
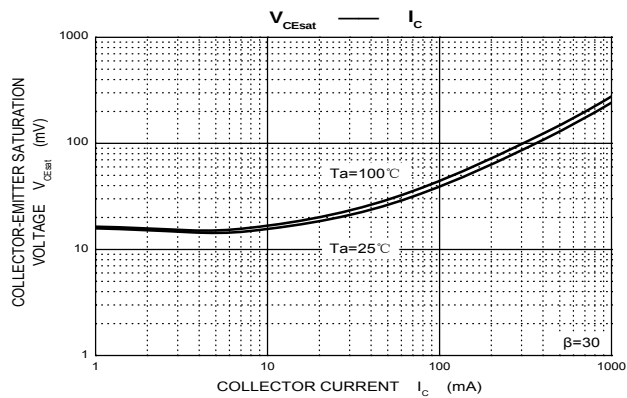
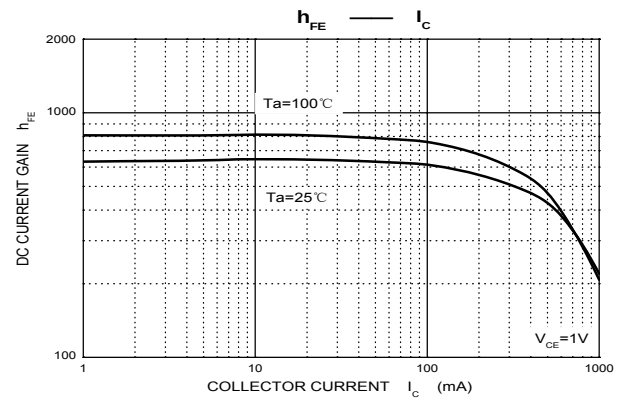
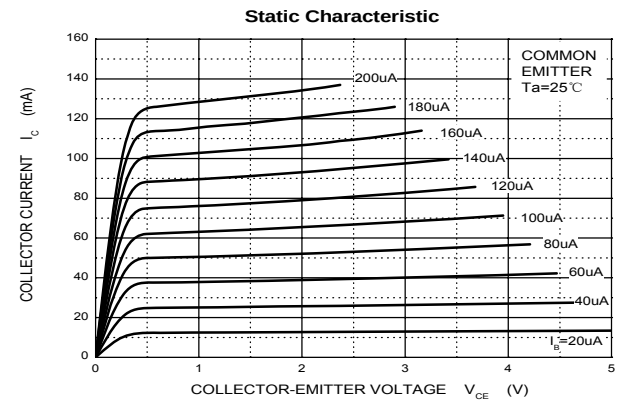
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=0.1mA, I_E=0$	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=0.1mA, I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=35V, I_E=0$			0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE}=20V, I_B=0$			5	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=1V, I_C=1mA$	290			
	$h_{FE(2)}$	$V_{CE}=1V, I_C=100mA$	300		1000	
	$h_{FE(3)}$	$V_{CE}=1V, I_C=300mA$	300			
	$h_{FE(4)}$	$V_{CE}=1V, I_C=500mA$	300			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=600mA, I_B=20mA$			0.55	V
Transition frequency	f_T	$V_{CE}=10V, I_E=50mA, f=1MHz$	100			MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		9		pF

CLASSIFICATION OF $h_{FE(2)}$

RANK	B	C	D
RANGE	300 - 550	500 - 700	650 - 1000
MARKING	28S		



Rating And Characteristic Curves





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