


SOT-23 Plastic-Encapsulate Transistors


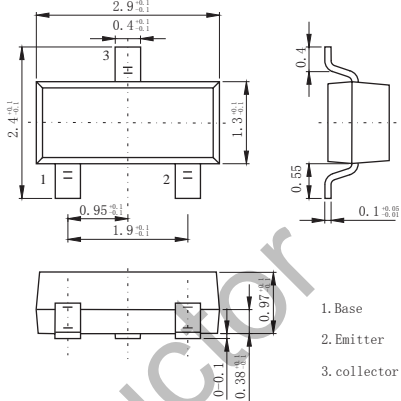


S9012 (PNP)

Features

- High Collector Current
- Complementary To S9013
- Excellent hFE Linearity

SOT-23

MARKING: 2T1

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	-40	V
V _{CEO}	Collector-Emitter Voltage	-25	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current	-500	mA
P _C	Collector Power Dissipation	300	mW
R _{θJA}	Thermal Resistance From Junction To Ambient	416	°C/W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~+150	°C

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 =-0.1mA, I _E =0	-40			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =-1mA, I _B =0	-25			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =-0.1mA, I _C =0	-5			V
Collector cut-off current	I _{CBO}	V _{CB} =-40V, I _E =0			-0.1	uA
Collector cut-off current	I _{CEO}	V _{CE} =-20V, I _B =0			-0.1	uA
Emitter cut-off current	I _{EBO}	V _{EB} =-5V, I _C =0			-0.1	uA
DC current gain	h _{FE}	V _{CE} =-1V, I _C =-50mA	120		400	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-500mA, I _B =-50mA			-0.6	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =-500mA, I _B =-50mA			-1.2	V
Transition frequency	f _T	V _{CE} =-6V, I _C =-20mA, f=30MHz	150			MHz
Collector output capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz			5	pF

CLASSIFICATION OF h_{FE}

RANK	L	H	J
RANGE	120-200	200-350	300-400

Typical Characteristics

