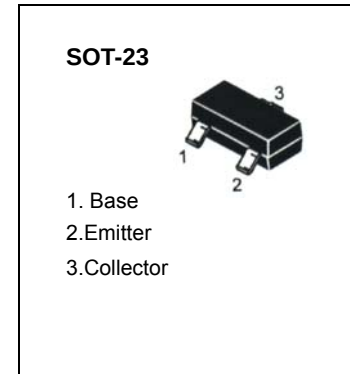


SOT-23 Plastic-Encapsulate Transistors

TRANSISTOR (PNP)



MARKING: 591

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-25	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-1.8	A
P_C	Collector Power Dissipation	0.3	W
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55-150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}$, $I_E=0$	-40		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}$, $I_B=0$	-25		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}$, $I_C=0$	-5		V
Collector cut-off current	I_{CBO}	$V_{CB}=-35\text{V}$, $I_E=0$		-0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE}=-20\text{V}$, $I_B=0$		-1.0	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-5\text{V}$, $I_C=0$		-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=-1\text{V}$, $I_C=-100\text{mA}$	200	350	
	$h_{FE(2)}$	$V_{CE}=-1\text{V}$, $I_C=-800\text{mA}$	40		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-800\text{mA}$, $I_B=-80\text{mA}$		-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-800\text{mA}$, $I_B=-80\text{mA}$		-1.2	V
Base-emitter on voltage	$V_{BE(on)}$	$I_C=-1\text{V}$, $V_{CE}=-10\text{mA}$		-1	V
Base-emitter positive favor voltage	V_{BEF}	$I_B=-1\text{A}$		-1.55	V
Transition frequency	f_T	$V_{CE}=-10\text{V}$, $I_C=-50\text{mA}$ $f=30\text{MHz}$	100		MHz
output capacitance	C_{ob}	$(V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz})$		20	pF