

## Plastic-Encapsulate Transistors

TRANSISTOR (PNP)

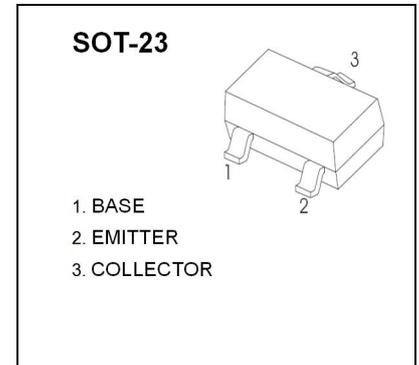
### FEATURES

Low equivalent on-resistance

Marking :591

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

Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector-Base Voltage	-80	V
$V_{CEO}$	Collector-Emitter Voltage	-60	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current	-1	A
$I_{CM}$	Peak Pulse Current	-2	A
$P_C$	Collector Power Dissipation	250	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	500	$^\circ\text{C/W}$
$T_j$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-55~+150	$^\circ\text{C}$



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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}, I_E=0$	-80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10\text{mA}, I_B=0$	-60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}, I_C=0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-60\text{V}, I_E=0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-4\text{V}, I_C=0$			-0.1	$\mu\text{A}$
DC current gain	$h_{FE(1)}$	$V_{CE}=-5\text{V}, I_C=-1\text{mA}$	100			
	$h_{FE(2)}$	$V_{CE}=-5\text{V}, I_C=-500\text{mA}$	100		300	
	$h_{FE(3)}$	$V_{CE}=-5\text{V}, I_C=-1\text{A}$	80			
	$h_{FE(4)}$	$V_{CE}=-5\text{V}, I_C=-2\text{A}$	15			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C=-500\text{mA}, I_B=-50\text{mA}$			-0.3	V
	$V_{CE(sat)2}$	$I_C=-1\text{A}, I_B=-100\text{mA}$			-0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-1\text{A}, I_B=-100\text{mA}$			-1.2	V
Base-emitter voltage	$V_{BE}$	$V_{CE}=-5\text{V}, I_C=-1\text{A}$			-1	V
Transition frequency	$f_T$	$V_{CE}=-10\text{V}, I_C=-50\text{mA}, f=100\text{MHz}$	150			MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=-10\text{V}, f=1\text{MHz}$			10	pF

## Typical Characteristics

