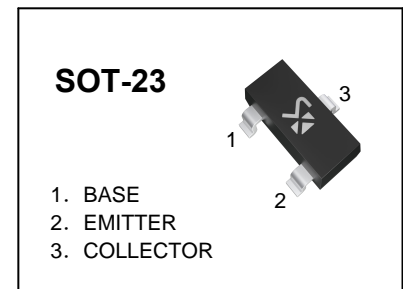


## NPN Silicon Epitaxial Planar Transistor

For switching and amplifier applications.  
Especially suitable for AF-driver stages and  
low power output stages.



**MARKING: J3Y**

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

Symbol	Parameter	Value	Units
$V_{CB0}$	Collector-Base Voltage	40	V
$V_{CEO}$	Collector-Emitter Voltage	30	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current -Continuous	500	mA
$P_C$	Collector Power Dissipation	300	mW
$T_j$	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	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=0.05\text{mA}$ ,	70			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}$ , $I_B=0$	30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=0.05\text{mA}$ , $I_C=0$	6			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=40\text{V}$ , $I_E=0$			0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5\text{V}$ , $I_C=0$			0.1	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE}=1\text{V}$ , $I_C=50\text{mA}$	85		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500\text{mA}$ , $I_B=50\text{mA}$			0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=500\text{mA}$ , $I_B=50\text{mA}$			1.2	V
Transition frequency	$f_T$	$V_{CE}=6\text{V}$ , $I_C=20\text{mA}$ $f=30\text{MHz}$	150			MHz

## PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23

