

**SOT-23 Plastic-Encapsulate Transistors****2SA1179** TRANSISTOR (PNP)

## FEATURES

- High breakdown voltage

MARKING: M

SOT-23



- BASE
- EMITTER
- COLLECTOR

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

Symbol	Parameter	Value	Units
$V_{CB0}$	Collector-Base Voltage	-55	V
$V_{CE0}$	Collector-Emitter Voltage	-50	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current -Continuous	-150	mA
$P_D$	Total Device Dissipation	200	mW
$T_J, T_{stg}$	Junction and Storage Temperature	-55-125	$^{\circ}\text{C}$

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-10\mu\text{A}, I_E=0$	-55			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}, I_B=0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-10\mu\text{A}, I_C=0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-35\text{V}, I_E=0$			-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	$h_{FE}$	$V_{CE}=-6\text{V}, I_C=-1\text{mA}$	200		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-50\text{mA}, I_B=-5\text{mA}$			-0.5	V
Base -emitter saturation voltage	$V_{BE(sat)}$	$I_C=-50\text{mA}, I_B=-5\text{mA}$			-1.0	V
Transition frequency	$f_T$	$V_{CE}=-6\text{V}, I_C=-10\text{mA}$		180		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=-6\text{V}, I_E=0, f=1\text{MHz}$		4		pF