



TO-92 Plastic-Encapsulate Transistors

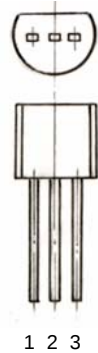
2SD879 TRANSISTOR (NPN)

FEATURES

- In applications where two NiCd batteries are used to provide 2.4V, two 2SD879s are used.
- The charge time is approximately 1 second faster Than that of germanium transistors.
- Less power dissipation because of low Collector-to-Emitter Voltage $V_{CE(sat)}$, permitting more flashes of light to be emitted.
- Small package and large allowable collector dissipation (TO-92, $P_C=750mW$).
- Large current capacity and highly resistant to break-down.
- Excellent linearity of h_{FE} in the region from low current to high current. Power amplifier applications

TO-92

1. EMITTER
2. COLLECTOR
3. BASE



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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	10	V
V_{CEX}		20	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current –Continuous	3	A
P_C	Collector Power Dissipation	750	mW
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature	-55-150	$^{\circ}C$

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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu A$, $I_E=0$	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEX}$	$I_C=1mA$, $V_{BE}=3V$	20			V
	$V_{(BR)CEO}$	$I_C=10mA$, $I_B=0$	10			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A$, $I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=20V$, $I_E=0$			1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V$, $I_C=0$			1	μA
DC current gain	h_{FE}^*	$V_{CE}=2V$, $I_C=3A$	140			
Collector-emitter saturation voltage	$V_{CE(sat)}^*$	$I_C=3A$, $I_B=60mA$			0.4	V
Transition frequency	f_T	$V_{CE}=10V$, $I_C=50mA$		200		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, f=1MHz$		30		pF

*PULSE TEST

Typical Characteristics

2SD879

