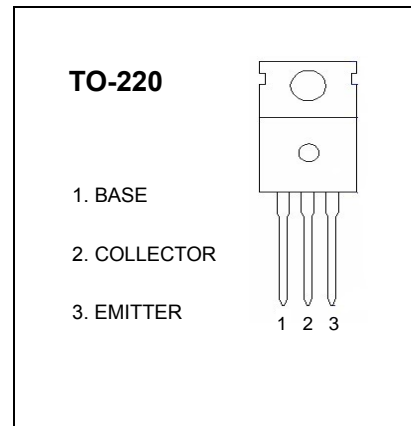


TO-220 Plastic-Encapsulate Transistors

2SD880 TRANSISTOR (NPN)

FEATURES

- Low Frequency Power Amplifier
- Complement to 2SB834



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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current -Continuous	3	A
P_C	Collector Power Dissipation	1.5	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	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=50\text{mA}, I_B=0$	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}, I_C=0$	7			V
Collector cut-off current	I_{CBO}	$V_{CB}=60\text{V}, I_E=0$			100	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=7\text{V}, I_C=0$			100	μA
DC current gain	h_{FE}	$V_{CE}=5\text{V}, I_C=500\text{mA}$	60		300	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=3\text{A}, I_B=300\text{mA}$			1	V
Base-emitter voltage	V_{BE}	$I_C=0.5\text{A}, V_{CE}=5\text{V}$			1	V
Transition Frequency	f_T	$V_{CE}=5\text{V}, I_C=500\text{mA}$		3		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		70		pF
Turn on time	t_{on}	$I_{B1}=-I_{B2}=0.2\text{A}, I_C=2\text{A}$ $V_{CC}=30\text{V}, PW=20\mu\text{s}$		0.8		μs
Storage time	t_s			1.5		μs
Fall time	t_f			0.8		μs

CLASSIFICATION OF h_{FE}

Rank	O	Y	GR
Range	60-120	100-200	150-300