



TO-220 Plastic-Encapsulated Transistors

2SD880 TRANSISTOR (NPN)

FEATURES

Power dissipation

P_{CM} : 1.5 W ($T_{amb}=25^{\circ}\text{C}$)

Collector current

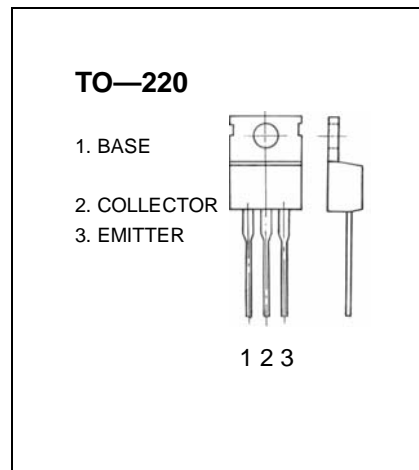
I_{CM} : 3 A

Collector-base voltage

$V_{(BR)CBO}$: 60 V

Operating and storage junction temperature range

T_J, T_{stg} : -55°C to $+150^{\circ}\text{C}$



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	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 saturation 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}	$V_{CE}=10\text{V}, I_E=0, f=1\text{MHz}$		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