



TO-220 Plastic-Encapsulated Transistors

2SD880 TRANSISTOR (NPN)

FEATURES

Power dissipation

$$P_{CM}: 1.5 \text{ W (Tamb=25°C)}$$

Collector current

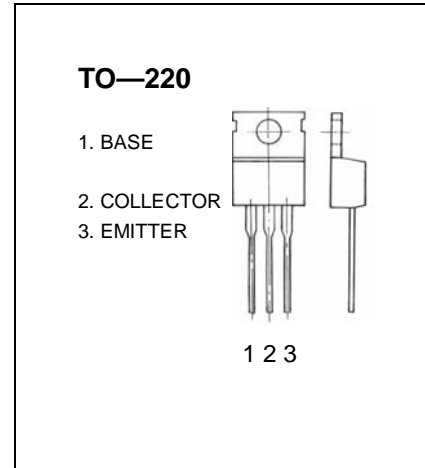
$$I_{CM}: 3 \text{ A}$$

Collector-base voltage

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

Operating and storage junction temperature range

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



ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=50mA, I_B=0$	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	7			V
Collector cut-off current	I_{CBO}	$V_{CB}=60V, I_E=0$			100	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=7V, I_C=0$			100	μA
DC current gain	h_{FE}	$V_{CE}=5V, I_C=500mA$	60		300	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=3A, I_B=300mA$			1	V
Base-emitter saturation voltage	V_{BE}	$I_C=0.5A, V_{CE}=5V$			1	V
Transition Frequency	f_T	$V_{CE}=5V, I_C=500mA$		3		MHz
Collector output capacitance	C_{ob}	$V_{CE}=10V, I_E=0, f=1MHz$		70		pF
Turn on time	t_{on}	$I_{B1}=I_{B2}=0.2A, I_C=2A$ $V_{CC}=30V, PW=20\mu s$		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