

### 2SD880 TRANSISTOR (NPN)

#### FEATURES

Power dissipation

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

Collector current

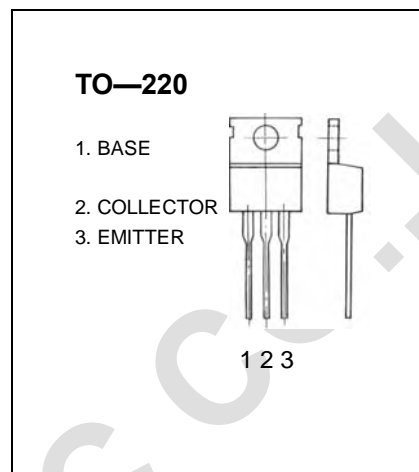
$I_{CM}$ : 3 A

Collector-base voltage

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

Operating and storage junction temperature range

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



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	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	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=7V, I_C=0$			100	$\mu A$
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		$\mu s$
Storage time	$t_s$			1.5		$\mu s$
Fall time	$t_f$			0.8		$\mu s$

#### CLASSIFICATION OF $h_{FE}$

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