



Micro Commercial Components

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2SD880

Features

- With TO-220 package
- Power amplifier applications
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

NPN Silicon Power Transistors

Maximum Ratings

Symbol	Rating	Rating	Unit
V_{CE0}	Collector-Emitter Voltage	60	V
V_{CB0}	Collector-Base Voltage	60	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current	3	A
P_C	Collector power dissipation	1.5	W
T_J	Junction Temperature	-55 to +150	°C
T_{STG}	Storage Temperature	-55 to +150	°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Type	Max	Units
OFF CHARACTERISTICS					
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=50\text{mA}$, $I_B=0$)	60	---	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=100\mu\text{A}$, $I_E=0$)	60	---	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=100\mu\text{A}$, $I_C=0$)	7	---	---	Vdc
I_{CBO}	Collector-Base Cutoff Current ($V_{CB}=60\text{Vdc}$, $I_E=0$)	---	---	100	μA
I_{EBO}	Emitter-Base Cutoff Current ($V_{EB}=7\text{Vdc}$, $I_C=0$)	---	---	100	μA

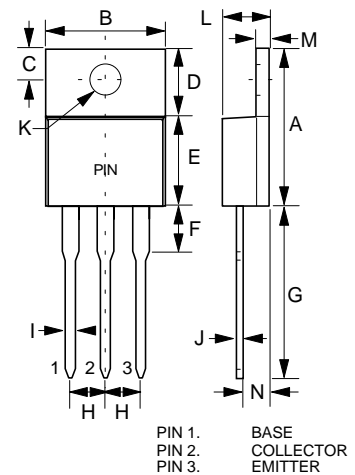
ON CHARACTERISTICS

h_{FE}	Forward Current Transfer ratio ($I_C=500\text{mA}$, $V_{CE}=5\text{Vdc}$)	60	---	300	---	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=3\text{A}$, $I_B=300\text{mA}$)	---	---	1	Vdc	
V_{BE}	Base-Emitter Voltage ($I_C=0.5\text{A}$, $V_{CE}=5\text{Vdc}$)	---	---	1	Vdc	
f_T	Transistor Frequency ($I_C=500\text{mA}$, $V_{CE}=5\text{Vdc}$)	---	3	---	MHz	
C_{ob}	Collector Output Capacitance ($V_{CB}=10\text{Vdc}$, $I_E=0$, $f=1\text{MHz}$)	---	70	---	pF	
t_{on}	Turn on time	$I_{B1}=-I_{B2}=0.2\text{A}$, $I_C=2\text{A}$, $V_{CC}=30\text{V}$, $PW=20\mu\text{s}$	---	0.8	---	μs
t_s	Storage time		---	1.5	---	μs
t_f	Fall time		---	0.8	---	μs

Classification Of h_{FE}

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

TO-220



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.100	.135	2.54	3.43	
D	.230	.270	5.84	6.86	
E	.380	.420	9.65	10.67	
F	-----	.250	-----	6.35	
G	.500	.580	12.70	14.73	
H	.090	.110	2.29	2.79	
I	.020	.045	0.51	1.14	
J	.012	.025	0.30	0.64	
K	.139	.161	3.53	4.09	∅
L	.140	.190	3.56	4.83	
M	.045	.055	1.14	1.40	
N	.080	.115	2.03	2.92	



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