



Micro Commercial Components



Micro Commercial Components
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Features

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Power amplifier applications
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Mounting Torque: 5 in-lbs Maximum

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	60	V
V_{CBO}	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	---	0.8	---	μs
t_s	Storage time	---	1.5	---	μs
t_f	Fall time	---	0.8	---	μs

Classification OF h_{FE}

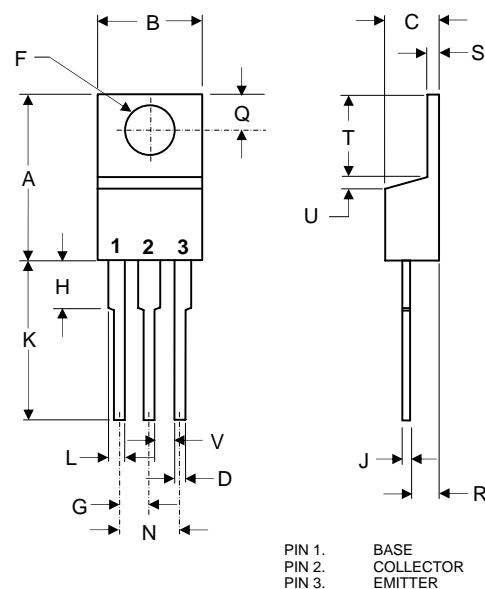
Rank	Q	Y	GR
Range	60-120	100-200	150-300

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

2SD880-Q
2SD880-Y
2SD880-GR

NPN Silicon Power Transistors

TO-220



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.140	.190	3.56	4.82	
D	.020	.045	0.51	1.14	
F	.139	.161	3.53	4.09	Ø
G	.190	.110	2.29	2.79	
H	---	.250	---	6.35	
J	.012	.025	0.30	0.64	
K	.500	.580	12.70	14.73	
L	.045	.060	1.14	1.52	
N	.190	.210	4.83	5.33	
Q	.100	.135	2.54	3.43	
R	.080	.115	2.04	2.92	
S	.045	.055	1.14	1.39	
T	.230	.270	5.84	6.86	
U	-----	.050	-----	1.27	
V	.045	-----	1.15	-----	

Ordering Information :

Device	Packing
Part Number-BP	Bulk; 1 Kpcs/Box

Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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