

**Micro Commercial Components** 



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Phone: (818) 701-4933 Fax: (818) 701-4939 2SD880-Q 2SD880-Y 2SD880-GR

## **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
- Moisure Sensitivity Level 1

## Maximum Ratings

Mounting Torgue: 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
Ic	Collector Current	3	Α
Pc	Collector power dissipation	1.5	W
$T_J$	Junction Temperature	-55 to +150	$^{\circ}\mathbb{C}$
$T_{STG}$	Storage Temperature	-55 to +150	$^{\circ}\mathbb{C}$

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Type	Max	Units
OFF CHARA	CTERISTICS				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage (I <sub>C</sub> =50mAdc, I <sub>B</sub> =0)	60			Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage (I <sub>C</sub> =100uAdc, I <sub>E</sub> =0)	60			Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage (I <sub>E</sub> =100uAdc, I <sub>C</sub> =0)	7			Vdc
I <sub>CBO</sub>	Collector-Base Cutoff Current (V <sub>CB</sub> =60Vdc,I <sub>E</sub> =0)			100	uAdc
I <sub>EBO</sub>	Emitter-Base Cutoff Current			100	uAdc

## ON CHARACTERISTICS

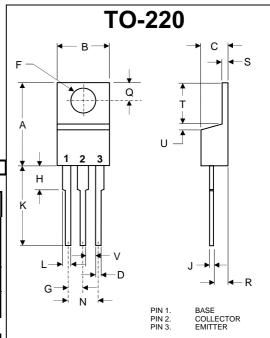
h <sub>FE</sub>	Forward Curre	60		300		
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage (I <sub>C</sub> =3Adc, I <sub>B</sub> =300mAdc)				1	Vdc
$V_{BE}$	Base-Emitter Voltage (I <sub>C</sub> =0.5Adc,V <sub>CE</sub> =5Vdc)				1	Vdc
f⊤	Transistor Frequency (I <sub>C</sub> =500mAdc, V <sub>CF</sub> =5Vdc)			3		MHz
C <sub>ob</sub>	Collector Output Capacitance (V <sub>CB</sub> =10Vdc, I <sub>E</sub> =0, f=1MHz)			70		pF
t <sub>on</sub>	Turn on time	I <sub>B1</sub> =-I <sub>B2</sub> =0.2A, I <sub>C</sub> =2A, V <sub>CC</sub> =30V, PW=20us		0.8		us
ts	Storage time			1.5		us
$t_{\scriptscriptstylef}$	Fall time	V <sub>CC</sub> =30V, 1 VV=20u3		0.8		us

## Classification OF hem

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

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

# NPN Silicon Power Transistors



		DIME	ENSIONS		
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
Α	.560	.625	14.22	15.88	
В	.380	.420	9.65	10.67	
С	.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	
Н		.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	
Т	.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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