

M·C·C·

Micro Commercial Components



Micro Commercial Components
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2SD874-Q

2SD874-R

2SD874-S

Features

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

Maximum Ratings

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	25	V
V_{CBO}	Collector-Base Voltage	30	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	1	A
P_C	Collector power dissipation	500	mW
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 ($I_C=2\text{mA}$, $I_B=0$)	25	---	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=10\text{uA}$, $I_E=0$)	30	---	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=10\text{uA}$, $I_C=0$)	5	---	---	Vdc
I_{CBO}	Collector-Base Cutoff Current ($V_{CB}=20\text{Vdc}$, $I_E=0$)	---	---	0.1	μA
I_{EBO}	Emitter-Base Cutoff Current ($V_{EB}=4\text{Vdc}$, $I_C=0$)	---	---	0.1	μA

ON CHARACTERISTICS

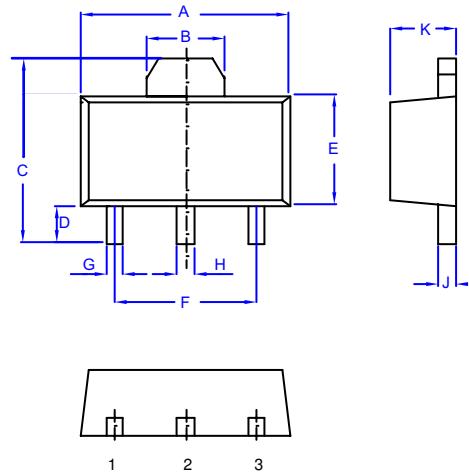
h_{FE}	Forward Current Transfer ratio ($I_C=500\text{mA}$, $V_{CE}=10\text{Vdc}$) ($I_C=1.0\text{mA}$, $V_{CE}=5\text{Vdc}$)	85 50	---	340 ---	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=500\text{mA}$, $I_B=50\text{mA}$)	---	---	0.4	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ($I_C=500\text{mA}$, $I_B=50\text{mA}$)	---	---	1.2	Vdc
f_T	Transistor Frequency ($I_C=50\text{mA}$, $V_{CE}=10\text{Vdc}$, $f=200\text{MHz}$)	---	200	---	MHz
C_{ob}	Collector Output Capacitance ($V_{CB}=10\text{Vdc}$, $I_E=0$, $f=1\text{MHz}$)	---	20	---	pF

Classification Of $h_{FE(1)}$

Rank	Q	R	S
Range	85-170	120-240	170-340
Marking	ZQ	ZR	ZS

NPN Silicon Power Transistors

SOT-89



1. Base

2. Collector

3. Emitter

DIM	INCHES		MM		NOTES
	MIN	MAX	MIN	MAX	
A	.173	.181	4.39	4.60	
B	.063	.071	1.60	1.80	
C	.154	.165	3.91	4.25	
D	.031	.039	0.80	1.00	
E	.092	.100	2.34	2.54	
F	.118	----	3.00	----	TYP
G	.013	.019	0.33	0.48	
H	.015	.021	0.38	0.53	
J	.015	.016	0.38	0.41	
K	.055	.063	1.40	1.60	

Ordering Information :

Device	Packing
Part Number-TP	Tape & Reel; 1 Kpc/s/Reel

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

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