



Micro Commercial Components



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**2SD874A-Q
2SD874A-R
2SD874A-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	50	V
V _{CBO}	Collector-Base Voltage	60	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 =2mA _{dc} , I _B =0)	50	---	---	Vdc
V _{(BR)CBO}	Collector-Base Breakdown Voltage (I _C =10uA _{dc} , I _E =0)	60	---	---	Vdc
V _{(BR)EBO}	Emitter-Base Breakdown Voltage (I _E =10uA _{dc} , I _C =0)	5	---	---	Vdc
I _{CBO}	Collector-Base Cutoff Current (V _{CB} =20Vdc, I _E =0)	---	---	0.1	uA _{dc}
I _{EBO}	Emitter-Base Cutoff Current (V _{EB} =4Vdc, I _C =0)	---	---	0.1	uA _{dc}

ON CHARACTERISTICS

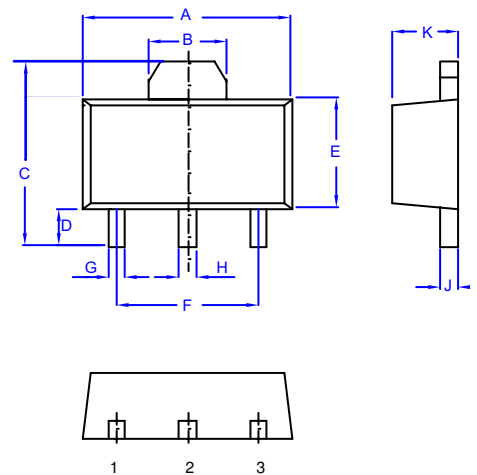
h _{FE}	Forward Current Transfer ratio (I _C =500mA _{dc} , V _{CE} =10Vdc) (I _C =1.0A _{dc} , V _{CE} =5Vdc)	85 50	---	340 ---	---
V _{CE(sat)}	Collector-Emitter Saturation Voltage (I _C =500mA _{dc} , I _B =50mA _{dc})	---	---	0.4	Vdc
V _{BE(sat)}	Base-Emitter Saturation Voltage (I _C =500mA _{dc} , I _B =50mA _{dc})	---	---	1.2	Vdc
f _T	Transistor Frequency (I _C =50mA _{dc} , V _{CE} =10Vdc, f=200MHz)	---	200	---	MHz
C _{ob}	Collector Output Capacitance (V _{CB} =10Vdc, I _E =0, f=1MHz)	---	20	---	pF

Classification Of h_{FE}

Rank	Q	R	S
Range	85-170	120-240	170-340
Marking	YQ	YR	YS

**NPN Silicon
Power Transistors**

SOT-89



1. Base
2. Collector
3. Emitter

DIM	DIMENSIONS				NOTES
	INCHES		MM		
	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	



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Ordering Information :

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

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

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