



2SD874-Q 2SD874-R 2SD874-S

Features

- 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 ($I_C=2mA$, $I_E=0$)	25	---	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=10mA$, $I_E=0$)	30	---	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=10mA$, $I_C=0$)	5	---	---	Vdc
I_{CBO}	Collector-Base Cutoff Current ($V_{CB}=20V$, $I_E=0$)	---	---	0.1	uA
I_{EBO}	Emitter-Base Cutoff Current ($V_{EB}=4V$, $I_C=0$)	---	---	0.1	uA

ON CHARACTERISTICS

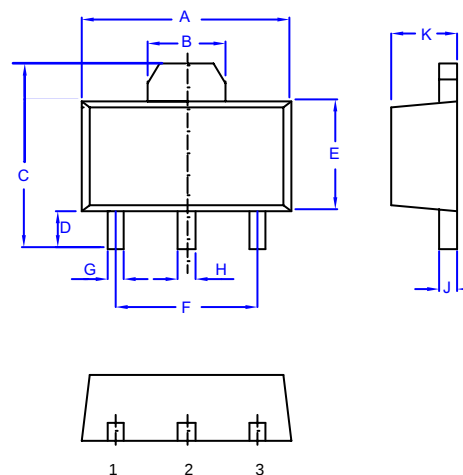
h_{FE}	Forward Current Transfer ratio ($I_C=500mA$, $V_{CE}=10V$) ($I_C=1.0A$, $V_{CE}=5V$)	85 50	---	340 ---	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=500mA$, $I_B=50mA$)	---	---	0.4	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ($I_C=500mA$, $I_B=50mA$)	---	---	1.2	Vdc
f_T	Transistor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

Classification OF h_{FE}

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

DIMENSINS					
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; 1Kpcs/Reel

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