Micro Commercial Components

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2SC4097-P
2SC4097-Q
2SC4097-R

NPN Silicon Epitaxial Transistors

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- High $I_{cmax.}$ I_{cmax}=0.5A
- Low $V_{CE(SAT).}$ Optimal for low voltage operation.
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1

Maximum Ratings

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	32	V
V_{CBO}	Collector-Base Voltage	40	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	500	mA
P_C	Collector power dissipation	200	mW
$T_{J,}$ T_{STG}	Junction and Storage Temperature	-55 to +150	℃

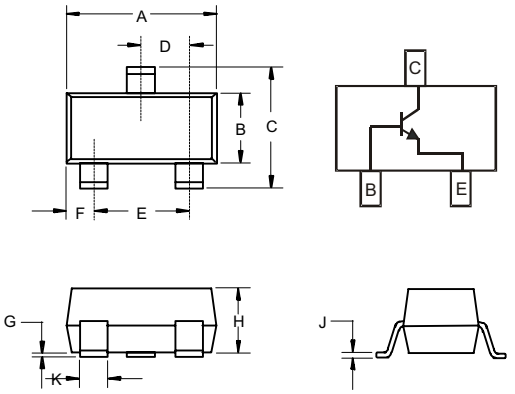
Electrical Characteristics @ 25℃ Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
$V_{(BR)CBO}$	Collector -base breakdown voltage (I_C=100μA, I_E= 0)	40			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage (I_C=-1mA, I_B= 0)	32			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage (I_E=100μA, I_c= 0)	5			V
I_{CBO}	Collector cut-off current (V_{CB}=20V,I_E=0)			1	μA
I_{EBO}	Emitter cut-off current (V_{EB}=4V, I_c= 0)			1	μA
h_{FE}	DC Current Gain (V_{CE}=3V,I_C=10mA)	82		390	
$V_{CE(sat)}$	Collector-emitter saturation voltage (I_C=100mA, I_B=10mA)			0.4	V
C_{ob}	Collector Output Capacitance (V_{CB}=10V, I_E=0, f=1.0MHz)		6		pF
f_T	Transition frequency (V_{CE}=5V, Ic=20mA,f=100MHz)		250		MHz

h_{FE} CLASSIFICATION

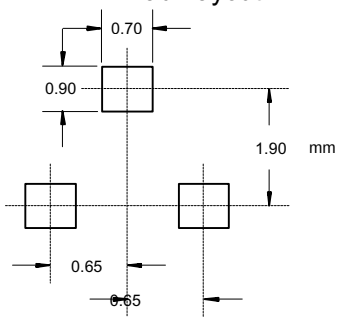
Rank	P	Q	R
Ramge	82~180	120~270	180~390
Marking	CP	CQ	CR

SOT-323



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.071	.087	1.80	2.20	
B	.045	.053	1.15	1.35	
C	.079	.087	2.00	2.20	
D	.026 Nominal		0.65Nominal		
E	.047	.055	1.20	1.40	
F	.012	.016	.30	.40	
G	.000	.004	.000	.100	
H	.035	.039	.90	1.00	
J	.004	.010	.100	.250	
K	.012	.016	.30	.40	

Suggested Solder Pad Layout



2SC4097-P/Q/R

●Electrical characteristic curves

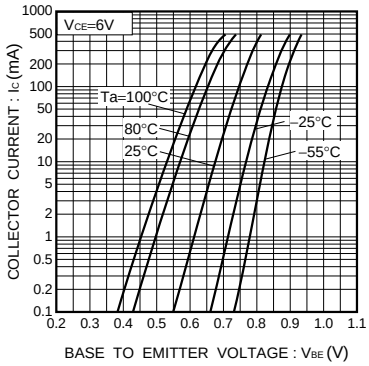


Fig.1 Grounded emitter propagation characteristics

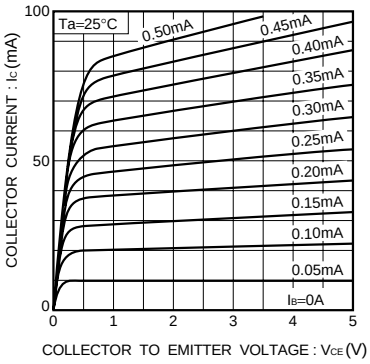


Fig.2 Grounded emitter output characteristics (I)

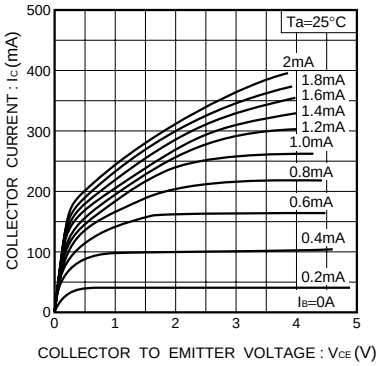


Fig.3 Grounded emitter output characteristics(II)

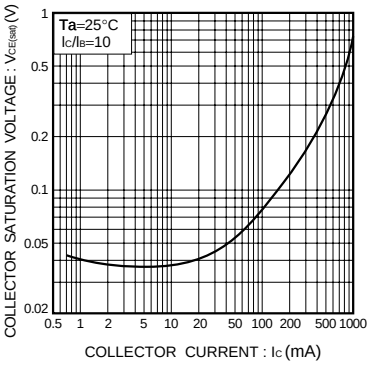


Fig.4 Collector-emitter saturation voltage vs. collector current

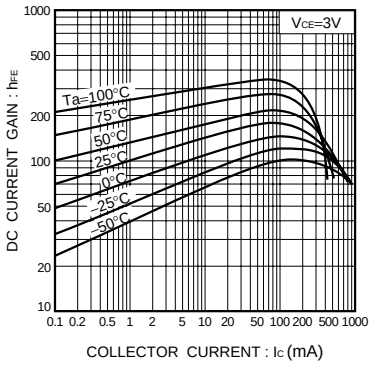


Fig.5 DC current gain vs. collector current

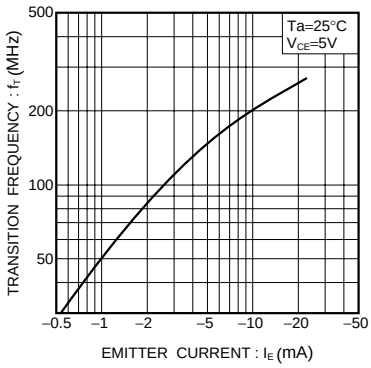


Fig. 6 Gain bandwidth product vs. emitter current

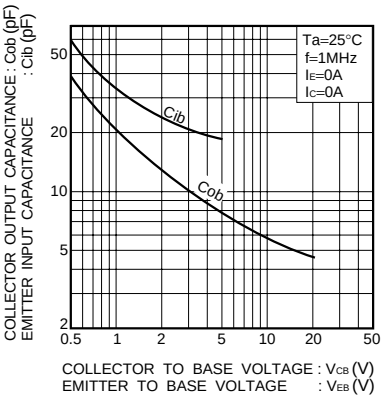


Fig.7 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel;3Kpcs/Reel

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