



Micro Commercial Components

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KSD471A KSD471A-O KSD471A-Y KSD471A-G

Features

- Collector Dissipation : $I_C = 1A$
- Collector Current : $P_C = 800mW$
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

Maximum Ratings

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	30	V
V_{CBO}	Collector-Base Voltage	40	V
V_{EBO}	Emitter-Base Voltage	5.0	V
I_C	Collector Current	1	A
P_C	Collector power dissipation	800	mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 to +150	°C

NPN Silicon Transistors

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
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OFF CHARACTERISTICS

$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=100\mu A$, $I_E=0$)	40	---	---	Vdc
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=10mA$, $I_B=0$)	30	---	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=100\mu A$, $I_C=0$)	5.0	---	---	Vdc
I_{CBO}	Collector-Base Cutoff Current ($V_{CB}=30V$, $I_E=0$)	---	---	0.1	μA

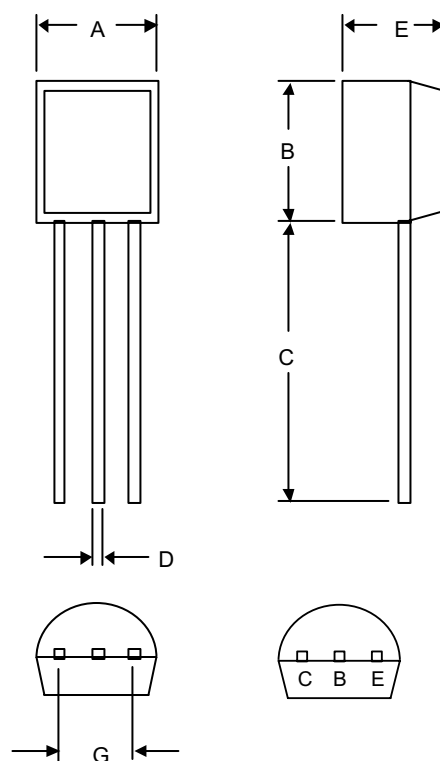
ON CHARACTERISTICS

h_{FE}	Forward Current Transfer ratio* ($I_C=0.1A$, $V_{CE}=1.0V$)	70	---	400	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=1A$, $I_B=0.1A$)	---	---	0.5	Vdc
f_T	Transition Frequency ($V_{CE}=6V$, $I_C=10mA$)	---	130	---	MHz
C_{ob}	Collector Output Capacitance ($V_{CB}=6V$, $I_E=0$, $f=1.0MHz$)	---	16	---	pF

CLASSIFICATION OF h_{FE}

Rank	O	Y	G
Range	70-140	120-240	200-400

TO-92



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.170	.190	4.33	4.83	
B	.170	.190	4.30	4.83	
C	.550	.590	13.97	14.97	
D	.010	.020	0.36	0.56	
E	.130	.160	3.30	3.96	
G	.096	.104	2.44	2.64	

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KSD471A

Typical Characteristics

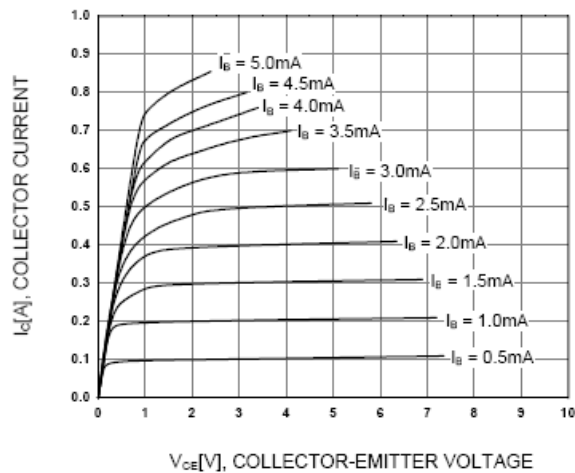


Figure 1. Static Characteristic

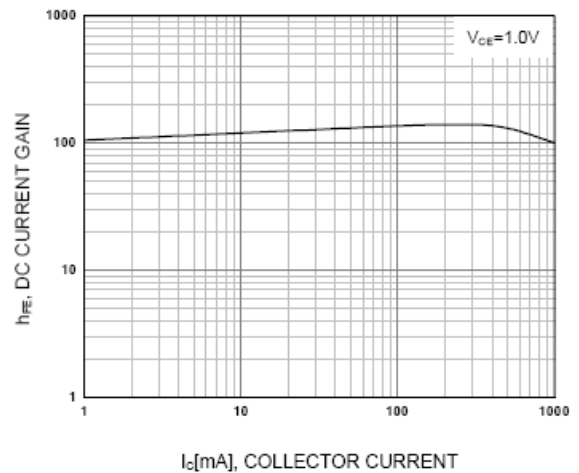


Figure 2. DC current Gain

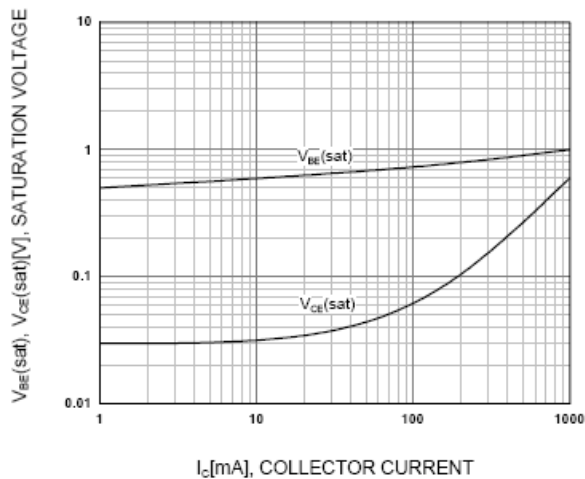


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

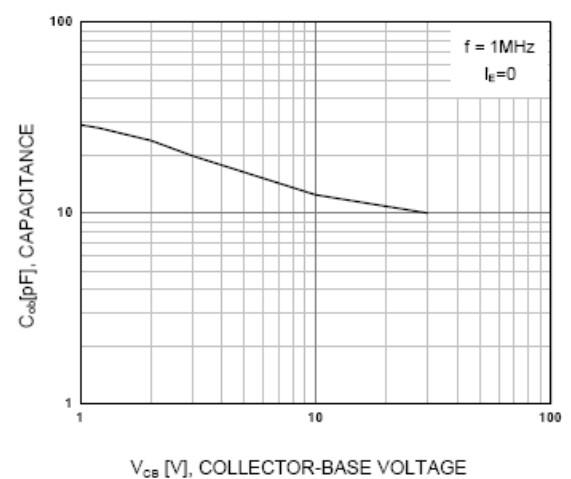


Figure 4. Collector Output Capacitance

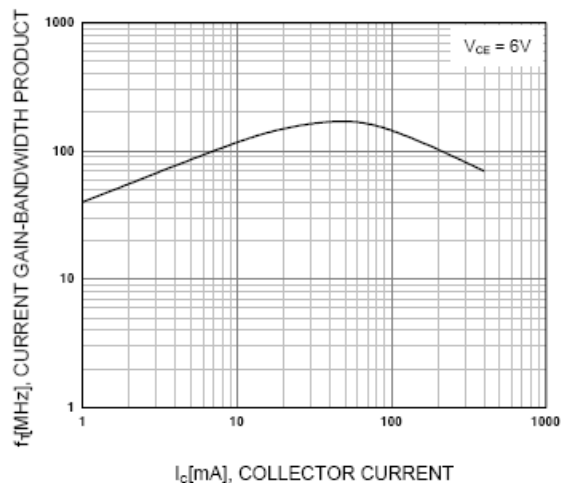


Figure 5. Current Gain Bandwidth Product

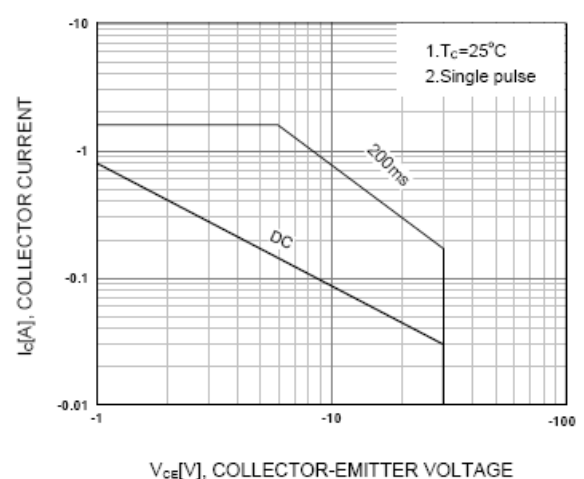


Figure 6. Safe Operating Area

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