



Micro Commercial Components



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KSD471A-O KSD471A-Y KSD471A-G

Features

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Collector Dissipation : $I_C = 1A$
- Collector Current : $P_C = 800mW$
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

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

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 ($V_{CB}=30Vdc, I_E=0$)	---	---	0.1	μA

ON CHARACTERISTICS

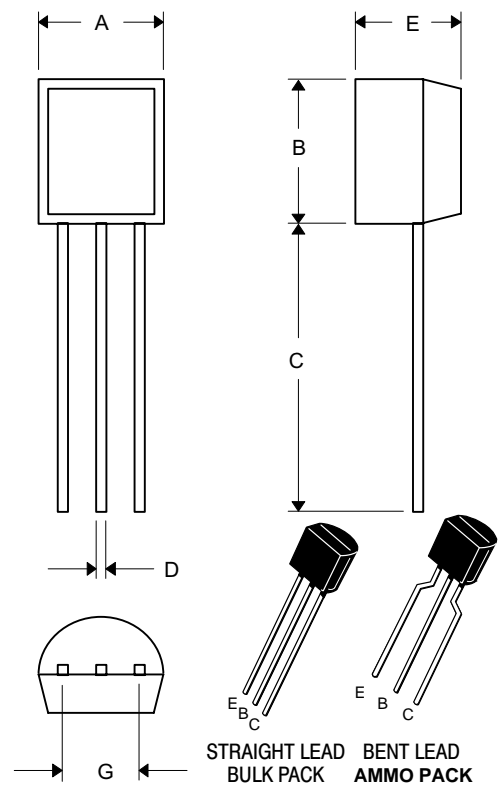
h_{FE}	Forward Current Transfer ratio* ($I_C=0.1A, V_{CE}=1.0Vdc$)	70	---	400	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=1A, I_B=0.1A$)	---	---	0.5	Vdc
f_T	Transition Frequency ($V_{CE}=6Vdc, I_C=10mA$)	---	130	---	MHz
C_{ob}	Collector Output Capacitance ($V_{CB}=6Vdc, I_E=0, f=1.0MHz$)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

CLASSIFICATION OF h_{FE}

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

NPN Silicon Transistors

TO-92



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.175	.185	4.45	4.70	
B	.175	.185	4.45	4.70	
C	.500	---	12.70	---	
D	.016	.020	0.41	0.63	
E	.135	.145	3.43	3.68	
G	.095	.105	2.42	2.67	Straight Lead
	.173	.220	4.40	5.60	Bent Lead

* For ammo packing detailed specification, click here to visit our website of product packaging for details.

KSD471A

Typical Characteristics

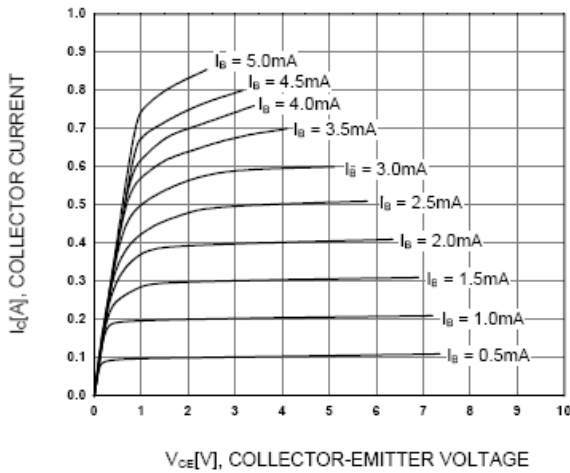


Figure 1. Static Characteristic

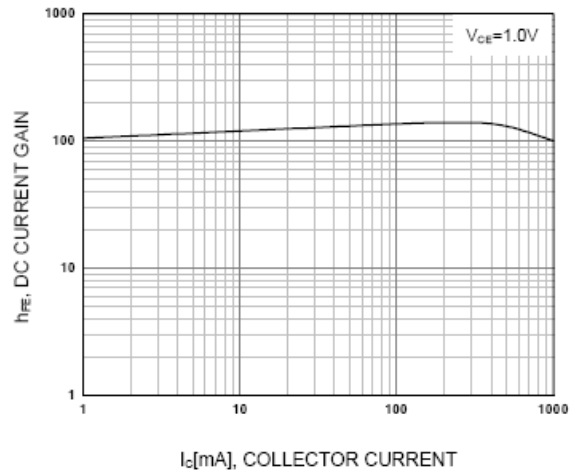


Figure 2. DC current Gain

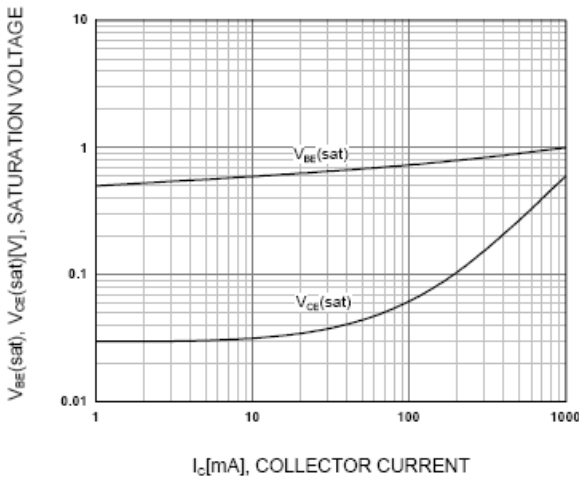


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

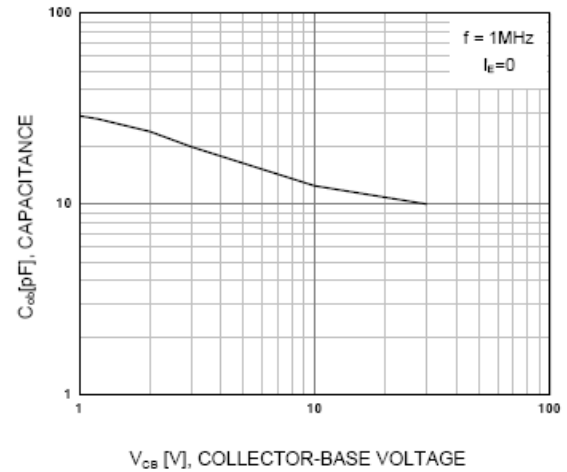


Figure 4. Collector Output Capacitance

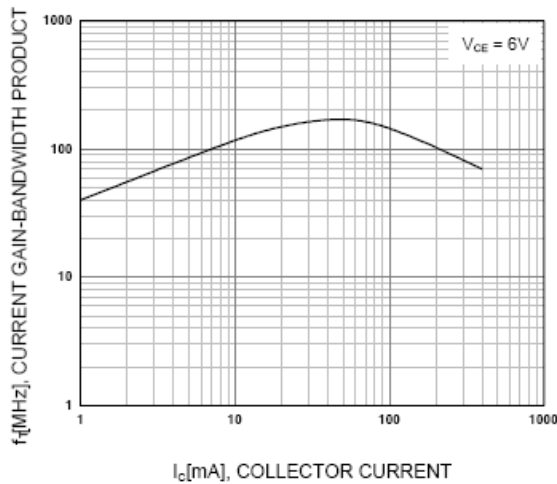


Figure 5. Current Gain Bandwidth Product

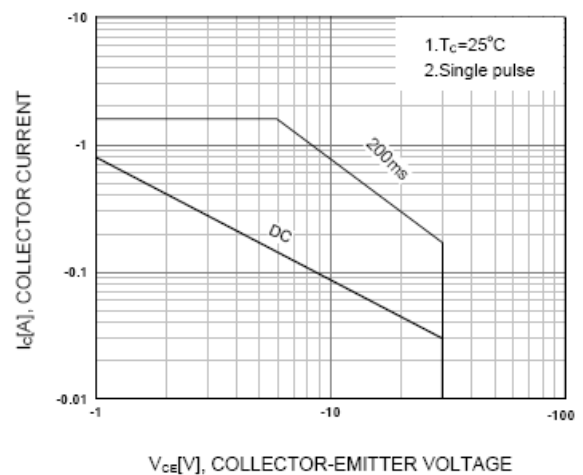


Figure 6. Safe Operating Area



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Ordering Information :

Device	Packing
Part Number-AP	Ammo Packing: 20Kpcs/Carton
Part Number-BP	Bulk: 100Kpcs/Carton

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

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