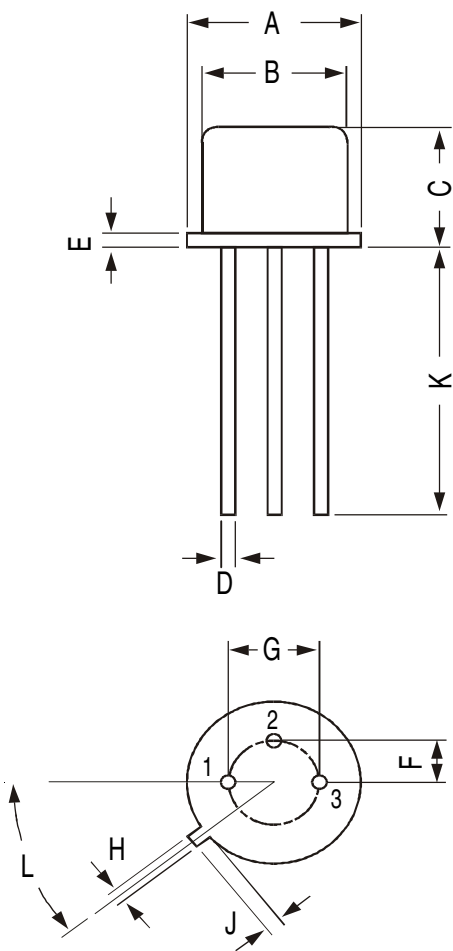


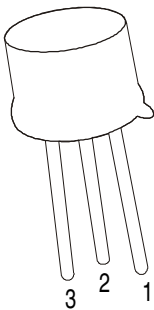
ELECTRICAL CHARACTERISTICS (Ta=25 deg C Unless Otherwise Specified)			2N2219A	
DESCRIPTION	SYMBOL	TEST CONDITION		UNIT
DC Current Gain	hFE	IC=0.1mA,VCE=10V	>35	
		IC=1mA,VCE=10V	>50	
		IC=10mA,VCE=10V	>75	
		Ta=55 deg C		
		IC=10mA,VCE=10V	>35	
		IC=150mA,VCE=10V	100-300	
		IC=150mA,VCE=1V	>50	
		IC=500mA,VCE=10V	>40	
<u>DYNAMIC CHARACTERISTICS</u>				
Small Signal Current Gain	hfe	ALL f=1kHz		
		IC=1mA, VCE=10V	50-300	
		IC=10mA, VCE=10V	75-375	
Input Impedance	hie	IC=1mA, VCE=10V	2.0-8.0	kohms
		IC=10mA, VCE=10V	0.25-1.25	
Voltage Feedback Ratio	hre	IC=1mA, VCE=10V	<8.0	x10-4
		IC=10mA, VCE=10V	<4.0	
Out put Admittance	hoe	IC=1mA, VCE=10V	5.0-35	umhos
		IC=10mA, VCE=10V	25-200	
Collector Base Time Constant	rb'Cc	IE=20mA, VCB=20V	<150	ps
Real Part Common-Emitter High Frequency Input Impedance	Re(hie)	f=31.8MHz		
		IC=20mA, VCE=20V	<60	ohms
Noise Figure	NF	f=300MHz IC=100uA, VCE=10V Rs=1kohms, f=1kHz	- <4.0	dB
<u>DYNAMIC CHARACTERISTICS</u>				
Transistors Frequency	ft	IC=20mA, VCE=20V	>300	MHz
Out-Put Capacitance	Cob	f=100MHz VCB=10V, IE=0	<8.0	pF
		f=100kHz VEB=0.5V, IC=0	<25	pF
Input Capacitance	Cib	f=100kHz		
<u>SWITCHING Time</u>				
Delay time	td	IC=150mA,IB1=15mA	<10	ns
Rise time	tr	VCC=30V,VBE=0.5V -	<25	ns
Storage time	ts	IC=150mA, IB1=	<225	ns
Fall time	tf	IB2=15mA, VCC=30V -	<60	ns
*Pulse Condition: Pulse Width=300us. Duty Cycle=2%				

TO-39 Metal Can Package



DIM	MIN	MAX
A	8.50	9.39
B	7.74	8.50
C	6.09	6.60
D	0.40	0.53
E	—	0.88
F	2.41	2.66
G	4.82	5.33
H	0.71	0.86
J	0.73	1.02
K	12.70	—
L	42 DEG	48 DEG

All dimensions are in mm



PIN CONFIGURATION
1. EMITTER
2. BASE
3. COLLECTOR

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