

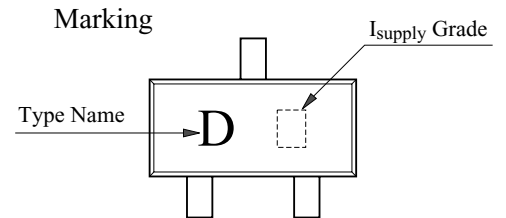
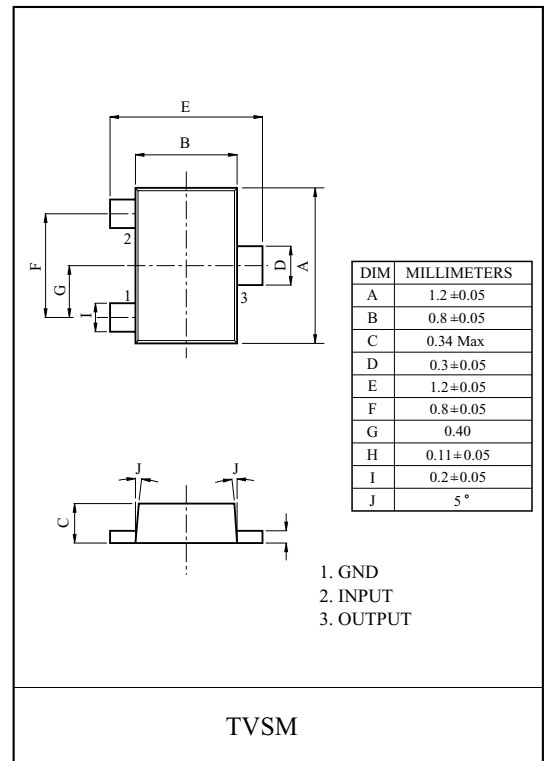
#### CONDENSER MICROPHONE APPLICATION

#### FEATURES

- Specially Suited for Use in Audio and Telephone Electret Capacitor Microphones(ECM)
- High Voltage Gain
- High ESD Voltage
- Ultra-Small and Thin Size Package
- Built-in TVS & 10pF Capacitor between OUTPUT to GND  
IEC 61000-4-2(ESD) 15kV(Air), 8kV(contact)

#### MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V <sub>SUPPLY</sub>	6	V
Supply Current	I <sub>SUPPLY</sub>	10	mA
Input Current	I <sub>INPUT</sub>	1	mA
Power Dissipation	P <sub>D</sub>	100	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 ~ 150	°C



# KTK599TV

## ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage	$V_{SUPPLY}$		-	-	5.0	V
Supply Current	$I_{SUPPLY}^*$	$V_{SUPPLY}=2.0V$	100	-	350	$\mu A$
Input Capacitance	$C_{INPUT}$	$f=1MHz$	-	4	-	pF
Voltage Gain	$G_V$	$f=1kHz, V_{SUPPLY}=2.0V$	-0.5	1.5	3	dB
Gain Reduction with Frequency	$\Delta G_{VF}$	$f=100Hz\sim 1kHz, V_{SUPPLY}=2.0V$	-	-	1.0	dB
Input Impedance	$Z_{INPUT}$	$f=1kHz, V_{SUPPLY}=2.0V$	10	-	-	$M\Omega$
Output Impedance	$Z_{OUTPUT}$	$f=1kHz, V_{SUPPLY}=2.0V$	-	-	2.2	$k\Omega$
Total Harmonic Distortion	THD	$f=1kHz, V_{SUPPLY}=2.0V, V_{IN}=20mV$	-	0.5	-	%
Output Noise	$e_n$	A-Weighted, $V_{SUPPLY}=3.0V$	-	-110	-	dB

[Ta=25 °C ,  $R_L = 2.2 k\Omega$  ,  $C_{IN}=5pF$  ,  $V_{SIGNAL} = 28mV_{pp}$ , See Specified AC Test Circuit]

Note1 : Absolute Maximum Ratings indicate limits beyond which damage to the device may occur.

Note2 : ESD Test Condition is IEC 61000-4-2 Standard which is 330  $\Omega$  in series with 150pF

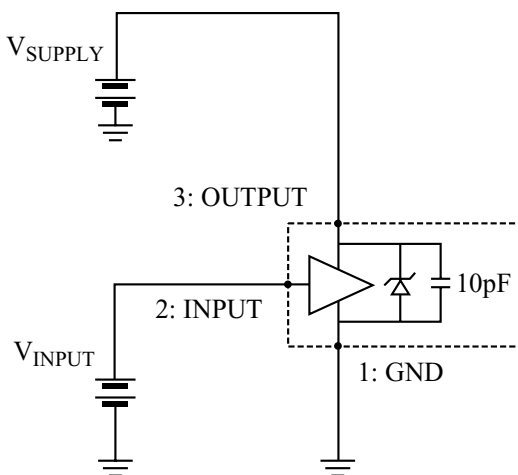
Note3 : Supply Voltage indicates conditions for which the device is intended to be functional, but specific performance is not guaranteed.

For guaranteed specifications and the conditions, see the Electrical Characteristics.

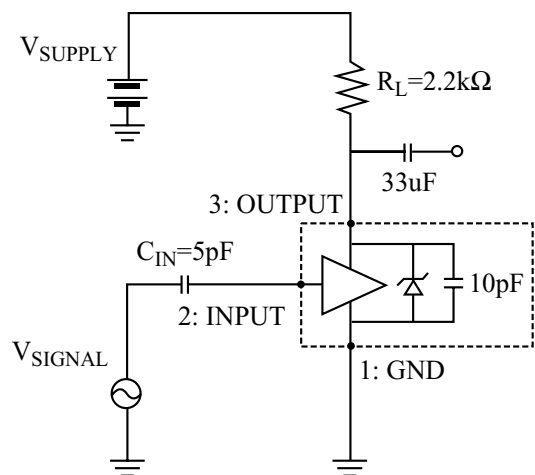
### \* $I_{SUPPLY}$ Classification

Classification	Y	GR
Marking	1	2
$I_{SUPPLY}(\mu A)$	150~250	210~350

DC Parameter Test Circuit



AC Parameter Test Circuit



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## TYPICAL CHARACTERISTICS

