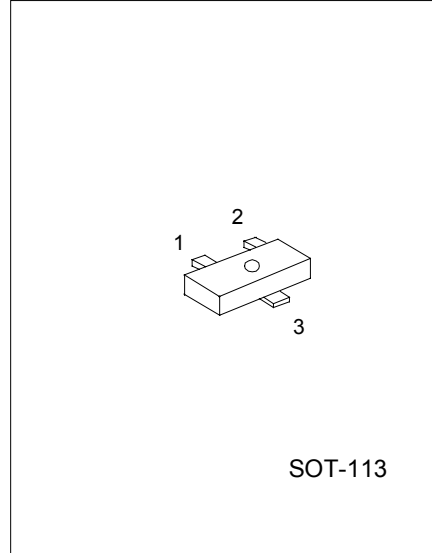


CAPACITOR MICROPHONE APPLICATIONS

FEATURES

- \*Ultrasmall-sized package permitting TF202 appliedses to be made small and slim.
- \*Especially suited for use in audio,telephone capacitor microphones.
- \*Excellent voltage charactristic.
- \*Excellent transient characteristic.
- \*Adoption of FBET process.



1:SOURCE 2:DRAIN 3. GATE

ABSOLUTE MAXIMUM RATINGS ( Ta=25°C ,unless otherwise specified )

PARAMETER	SYMBOL	RATING	UNIT
Gate Drain Voltage	V <sub>GDO</sub>	-20	V
Gate Current	I <sub>G</sub>	10	mA
Drain Current	I <sub>D</sub>	1	mA
Power Dissipation	P <sub>D</sub>	100	mW
Junctin Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>STG</sub>	-55~+150	°C

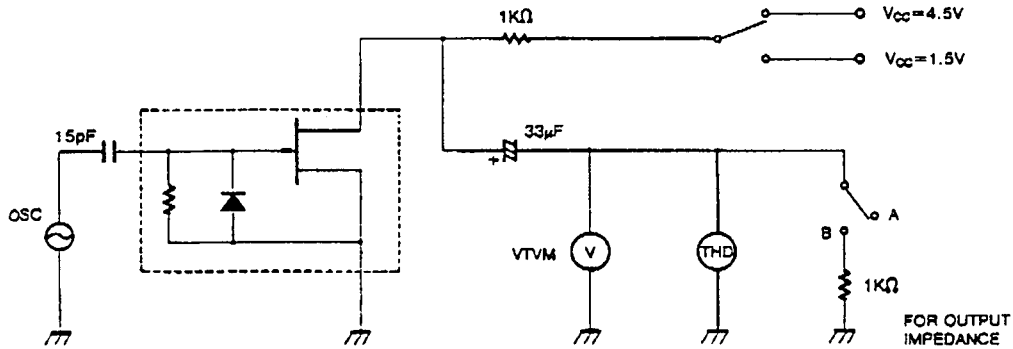
ELECTRICAL CHARACTERISTICS(Ta=25°C,unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Gate Drain Breakdown Voltage	B(BR)GDO	I <sub>G</sub> =-100μA	-20			V
Gate Source Cut off Voltage	V <sub>GS(off)</sub>	V <sub>DS</sub> =5V,I <sub>D</sub> =1μA	-0.2	-0.6	-1.2	V
Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> =5V,V <sub>GS</sub> =0	140		500	μA
Forward Transfer Admittance	Y <sub>FSL</sub>	V <sub>DS</sub> =5V,V <sub>GS</sub> =0,f=1KHz	0.5	1.2		mS
Input Capacitance	C <sub>ISS</sub>	V <sub>DS</sub> =5V,V <sub>GS</sub> =0,f=1MHz		3.5		pF
Output Capacitance	C <sub>RSS</sub>	V <sub>DS</sub> =5V,V <sub>GS</sub> =0,f=1MHz		0.65		pF

CLASSIFICATION OF I<sub>DSS</sub>

RANK	E4	E5	E6
I <sub>DSS</sub> (μA)	140-240	210-350	320-500

TEST CIRCUIT(Ta=25°C)



PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Voltage Gain	G <sub>v</sub>	V <sub>IN</sub> =10mV, f=1KHz		-3		dB
Reduced Voltage Characteristic	ΔG <sub>V</sub>	V <sub>IN</sub> =10mV, f=1KHz, V <sub>CC</sub> =4.5V→1.5V		-1.2	-3.5	dB
Frequency Characteristic	ΔG <sub>v</sub> f	f=1KHz to 110Hz			-1	dB
Input Resistance	Z <sub>IN</sub>	f=1KHz	25			MΩ
Output Resistance	Z <sub>O</sub>	f=1KHz			700	Ω
Total Harmonic distortion	THD	V <sub>IN</sub> =30mV, f=1KHz		1		%
Output Noise Voltage	V <sub>NO</sub>	V <sub>IN</sub> =0, A CURVE			-110	dB

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