UNISONIC TECHNOLOGIES CO., LTD

JFET

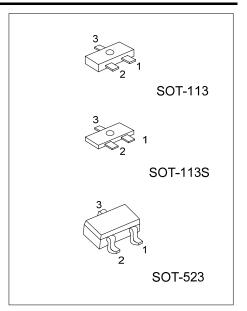
CAPACITOR MICROPHONE APPLICATIONS

DESCRIPTION

The UTC TF212 uses advanced trench technology to provide excellent R_{DS (ON)}, low gate charge and operation with low gate voltages. This device is suitable for use in capacitor microphone applications.

FEATURES

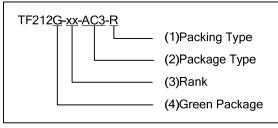
- * Suited for use in audio, telephone capacitor microphones.
- * Good voltage characteristic.
- * Good transient characteristic.
- * Halogen Free



ORDERING INFORMATION

Ondonina Namela an	Dealessa	Pin Assignment			De alviere	
Ordering Number	Package	1	2	3	Packing	
-	SOT-113	S	D	G	Tape Reel	
TF212G-xx-A3C-R	SOT-113S	S	D	G	Tape Reel	
-	SOT-523	S	D	G	Tape Reel	

Note: Pin Assignment: S: Source D: Drain G: Gate



- (1) R: Tape Reel
- (2) AC3: SOT-113, A3C: SOT-113S, AN3: SOT-523
- (3) x: refer to Classification of IDSS
- (4) G: Halogen Free and Lead Free

MARKING

TF212-F4	TF212-F5
F4	F5

TF212 JFET

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

PARAMETER	SYMBOL	RATING	UNIT
Gate Drain Voltage	V_{GDO}	-20	V
Gate Current	I _G	10	mA
Drain Current	I _D	1	mA
Power Dissipation	P_D	100	mW
Junction Temperature	T_J	150	°C
Storage Temperature	T _{STG}	-55~+150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

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

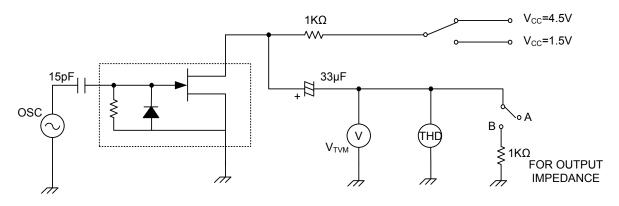
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Gate Drain Breakdown Voltage	BV _{GDO}	I _G =-100μA	-20			V
Gate Source Cut off Voltage	V _{GS(OFF)}	V_{DS} =5V, I_D =1 μ A	-0.2	-0.6	-1.2	V
Drain Current	I _{DSS}	V _{DS} =5V, V _{GS} =0	140		350	μA
Forward Transfer Admittance	IYFSI	V _{DS} =2V, V _{GS} =0, f=1KHz	1	1.2		mS
Input Capacitance	C _{ISS}	V _{DS} =5V, V _{GS} =0, f=1MHz		3.5		pF
Output Capacitance	C _{RSS}	V _{DS} =5V, V _{GS} =0, f=1MHz		0.65		pF
Voltage Gain	Gv	V _{IN} =10mV, f=1KHz		-3		dB
Reduced Voltage Characteristic	$\triangle G_{VV}$	V _{IN} =10mV,f=1KHz, V _{CC} =4.5V→1.5V		-1.2	-3.5	dB
Frequency Characteristic	$\triangle G_{Vf}$	f=1KHz to 110Hz			-1	dB
Input Resistance	Z_{IN}	f=1KHz	25			МΩ
Output Resistance	Zo	f=1KHz			700	Ω
Total Harmonic distortion	THD	V _{IN} =30mV, f=1KHz		1		%
Output Noise Voltage	V _{NO}	V _{IN} =0			-110	dB

■ CLASSIFICATION OF I_{DSS}

RANK	F4	F5
RANGE	140-240	210-350

TF212 JFET

■ TEST CIRCUIT (T_A=25°C)



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