TF412S

N-Channel JFET 30V, 1.2 to 3.0mA, 5.0mS, SOT-883



- Small IGSS : max -1.0nA (V_{GS}=-20V, V_{DS}=0V)
- Small Ciss : typ 4pF (V_{DS}=10V, V_{GS}=0V, f=1MHz)
- Ultrasmall package facilitates miniaturization in end products
- Halogen free compliance

Applications

• Low-Frequency general-purpose amplifier, impedance conversion, infrared sensor applications

Specifications

Absolute Maximum Ratings at Ta = 25°C

V						
Parameter	Symbol	Value	Unit			
Drain-to-Source Voltage	V _{DSX}	30	V			
Gate-to-Drain Voltage	V _{GDS}	-30	V			
Gate Current	IG	10	mA			
Drain Current	ID	10	mA			
Power Dissipation	PD	100	mW			
Junction Temperature	Tj	150	°C			
Storage Temperature	Tstg	-55 to +150	°C			

This product is designed to "ESD immunity < 200V*", so please take care when handling.

* Machine Model



Electrical Connection



Marking



Ordering & Package Information

Device	Package	Shipping
TF412ST5G	SOT-883	0.000
Pb-free and		8,000
Halogen Free		pcs. / reel

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

Electrical Characteristics at Ta = 25°C

Parameter Sym	Currents et	DI Conditions	Value			1.1
	Symbol		min	typ	max	Unit
Gate-to-Drain Breakdown Voltage	V _(BR) GDS	I _G = –10μΑ, V _{DS} =0V	-30			V
Gate-to-Source Leakage Current	IGSS	V _{GS} = -20V, V _{DS} =0V			-1.0	nA
Cutoff Voltage	V _{GS} (off)	V _{DS} = 10V, I _D = 1µA	-0.18	-0.80	-1.5	V
Drain Current	IDSS	V _{DS} = 10V, V _{GS} = 0V	1.2		3.0	mA
Forward Transfer Admittance	yfs	V _{DS} = 10V, V _{GS} =0V, f = 1kHz	3.0	5.0		mS
Input Capacitance	Ciss	V _{DS} = 10V, V _{GS} = 0V, f = 1MHz		4		pF
Reverse Transfer Capacitance	Crss			1.1		pF

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.



No.A2300-2/4



Package Dimensions

TF412ST5G

SOT-883 (XDFN3), 1.0x0.6, 0.35P CASE 506CB

ISSUE A







*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.



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