Ordering number : ENA2007

SANYO Semiconductors
DATA SHEET

An ON Semiconductor Company

N-Channel Silicon Junction FET

TF410 — Impedance Converter, Infrared Sensor Applications

Applications

- Impedance conversion, infrared sensor applications

Features

- Ultrasmall package facilities miniaturization in end products : 1.0mm×0.6mm×0.27mm (max 0.3mm)
- Small I_{GSS} : max –500pA (V_{GSS}= –20V, V_{DS}=0V)
- Small Ciss : typ. 0.7pF (V_{DS}= 10V, V_{GS}=0V, f=1MHz)
- Halogen free compliance

Specifications

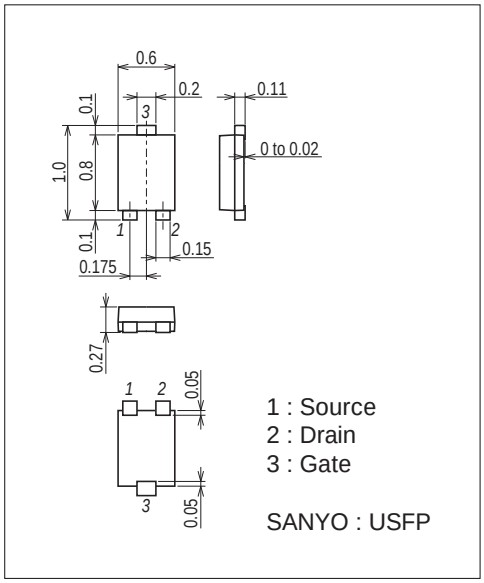
Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSS}		40	V
Gate-to-Drain Voltage	V_{GDS}		–40	V
Gate Current	I_G		10	mA
Drain Current	I_D		1	mA
Allowable Power Dissipation	P_D		30	mW
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		–55 to +150	°C

Package Dimensions

unit : mm (typ)

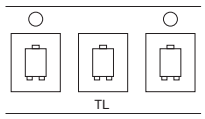
7055-003



Product & Package Information

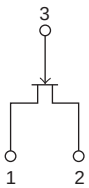
- Package : USFP
- JEITA, JEDEC : -
- Minimum Packing Quantity : 10,000 pcs./reel

Packing Type: TL



Marking

Electrical Connection



1 : Source
2 : Drain
3 : Gate

Top view

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gate-to-Drain Breakdown Voltage	$V_{(BR)GDS}$	I_G=−10μA, V_{DS}=0V	−40			V
Gate-to-Source Leakage Current	I_{GSS}	V_{GS}=−20V, V_{DS}=0V			−500	pA
Cutoff Voltage	$V_{GS(off)}$	V_{DS}=10V, I_D=1μA		−1.4	−4.0	V
Drain Current	I_{DSS}	V_{DS}=10V, V_{GS}=0V	50		130	μA
Forward Transfer Admittance	| yfs |	V_{DS}=10V, V_{GS}=0V, f=1kHz	0.05	0.11		mS
Input Capacitance	Ciss	V_{DS}=10V, V_{GS}=0V, f=1MHz		0.7		pF
Reverse Transfer Capacitance	Crss			0.3		pF