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Ordering number : EN4112A

SANYO Semiconductors

DATA SHEET

N-Channel Junction Silicon FET

2SK1740 — HF Amplifiers Low-Frequency Amplifiers Analog Switches

Features

- Adoption of FBET process.
- Large |yfs|.
- Small Ciss
- Small-sized package permitting 2SK1740-applied sets to be made small and slim.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSX}		40	V
Gate-to-Drain Voltage	V_{GDS}		−40	V
Gate Current	I_G		10	mA
Drain Current	I_D		75	mA
Allowable Power Dissipation	P_D		250	mW
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		−55 to +150	°C

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			−1.0	nA
Cutoff Voltage	V_{GS}(off)	V_{DS}=10V, I_D=100μA	−2.0	−3.0	−5.0	V
Drain Current	I_{DSS}	V_{DS}=10V, V_{GS}=0V	40*		75*	mA
Forward Transfer Admittance	|yfs|1	V_{DS}=10V, I_D=10mA, f=1kHz	10	15		mS
	|yfs|2	V_{DS}=10V, V_{GS}=0V, f=1kHz	22	30		mS
Input Capacitance	Ciss	V_{DS}=10V, V_{GS}=0V, f=1MHz		11		pF
Reverse Transfer Capacitance	Crss	V_{DS}=10V, V_{GS}=0V, f=1MHz		2.5		pF
Noise Figure	NF	V_{DS}=10V, Rg=1kΩ, I_D=1mA, f=1kHz		1.5		dB
Static Drain-to-Source On-State Resistance	R_{DS}(on)	I_D=10mA, V_{GS}=0V		30		Ω

Marking : IJ

* : Pulse Test Pulse Width≤2ms.

* : The 2SK1740 is classified by I_{DSS} as follows : (unit : mA).

Rank	3	4	5
I_{DSS}	40 to 52	48 to 63	57 to 75

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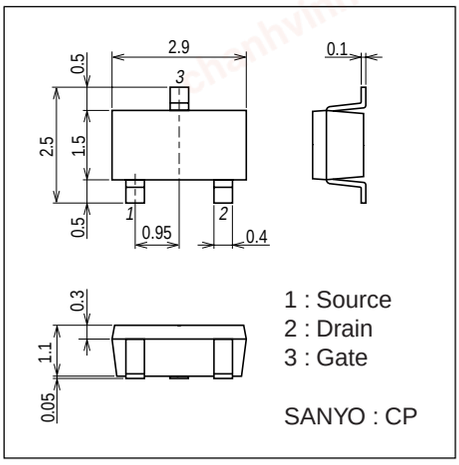
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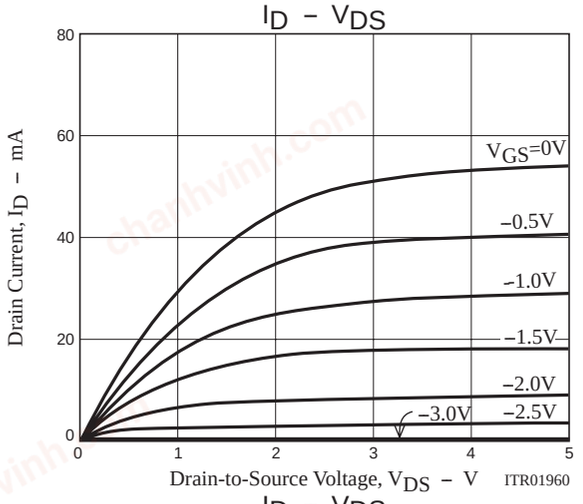
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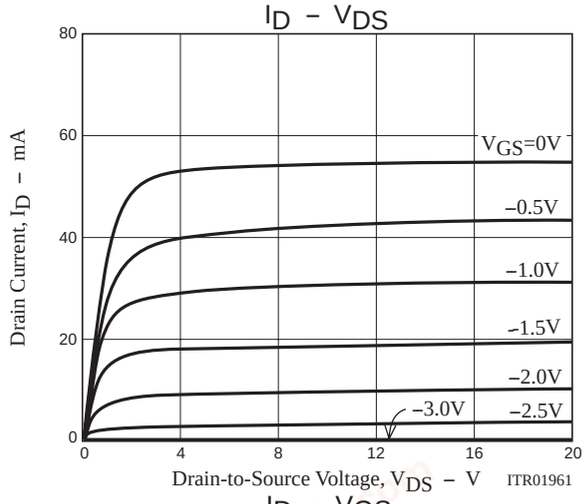
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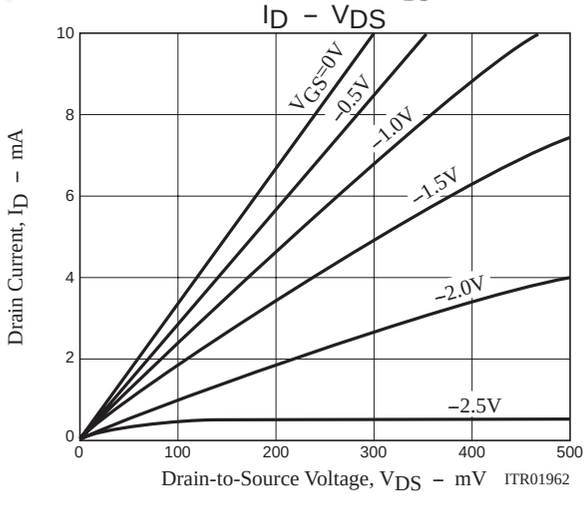
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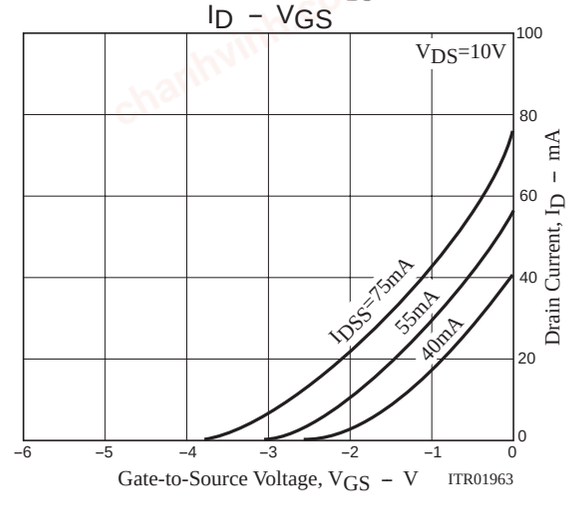
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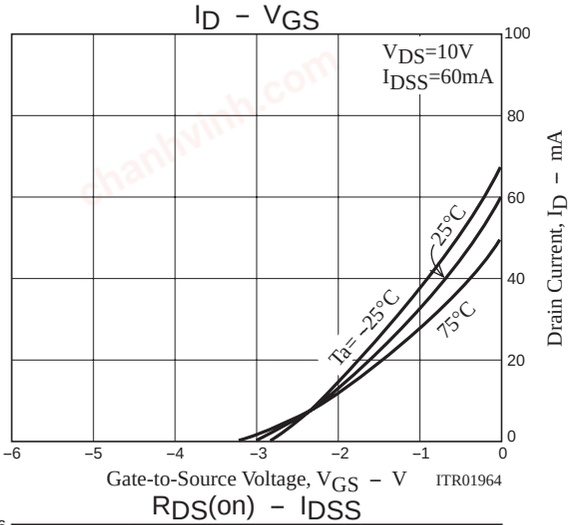


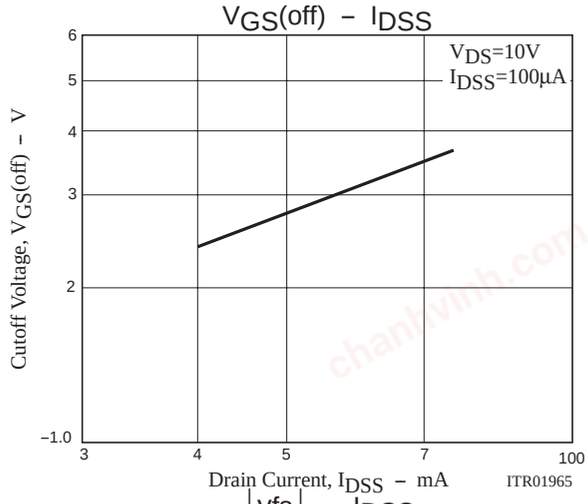


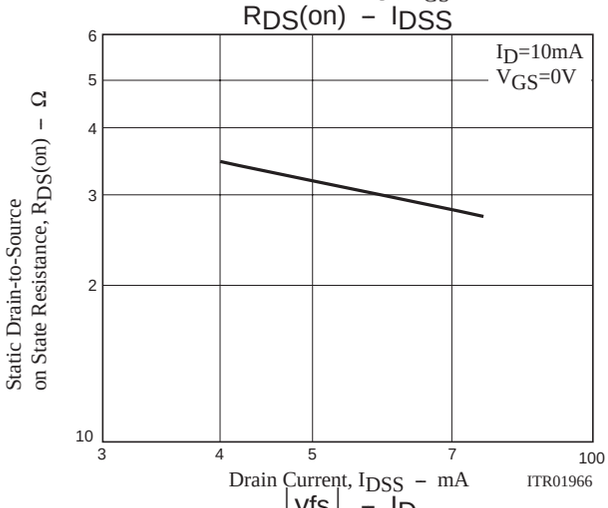


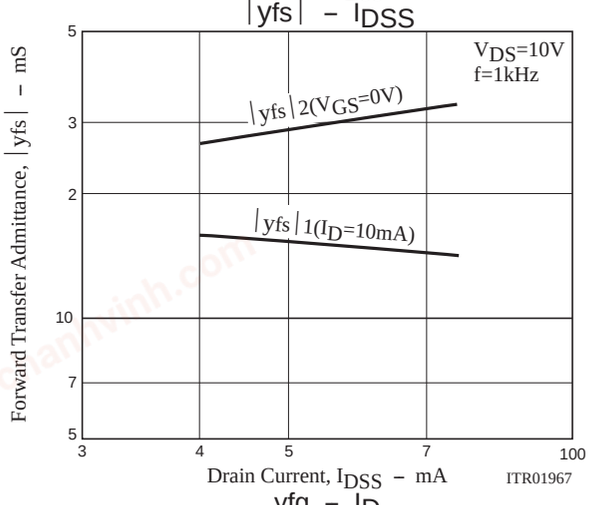


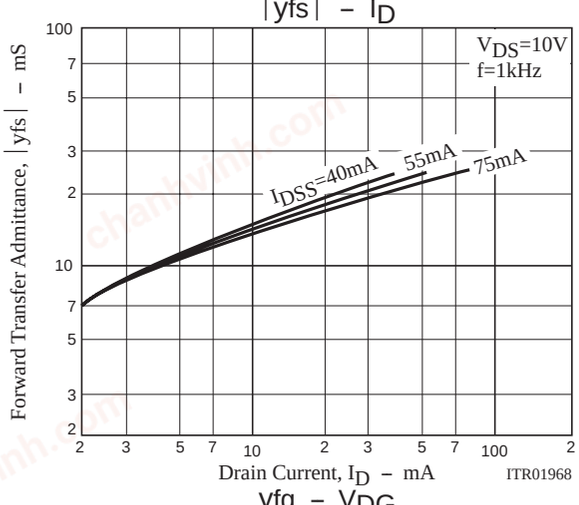
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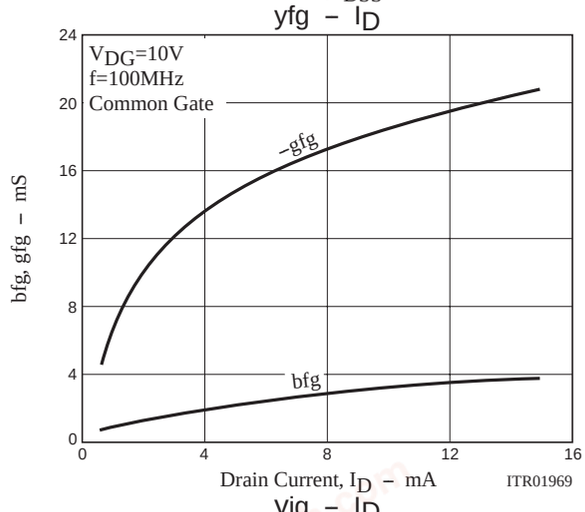


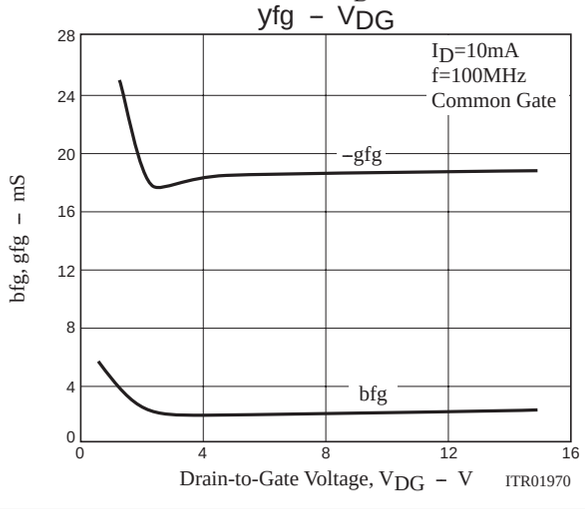


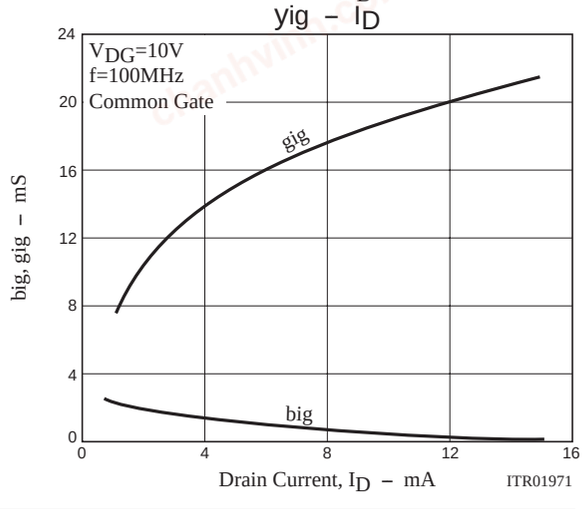






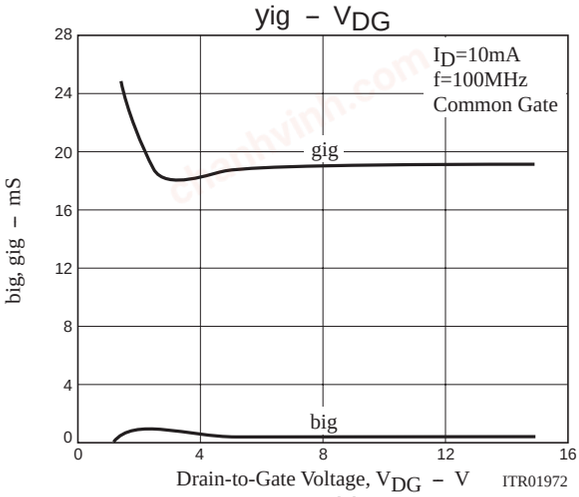




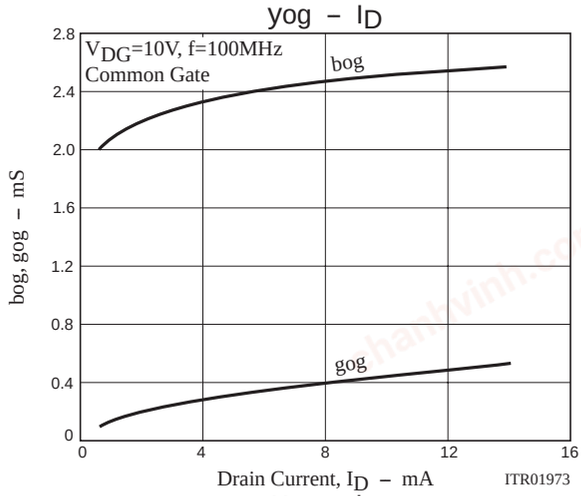


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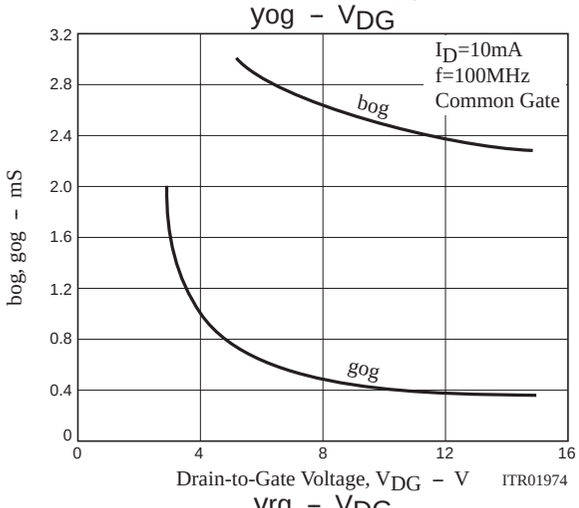
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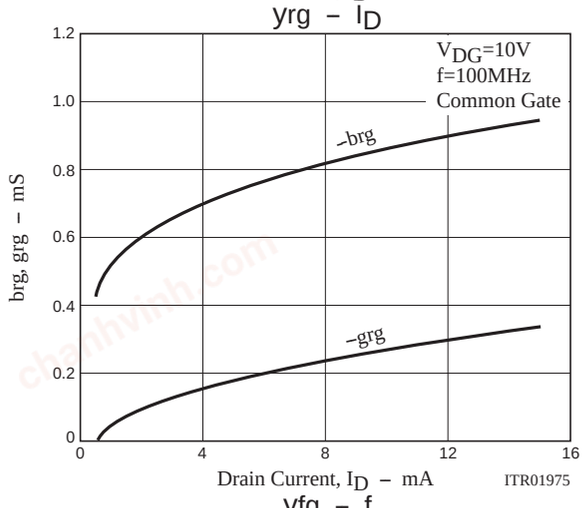
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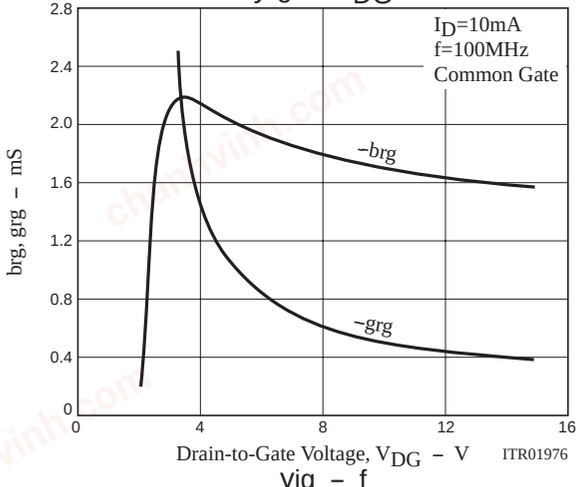
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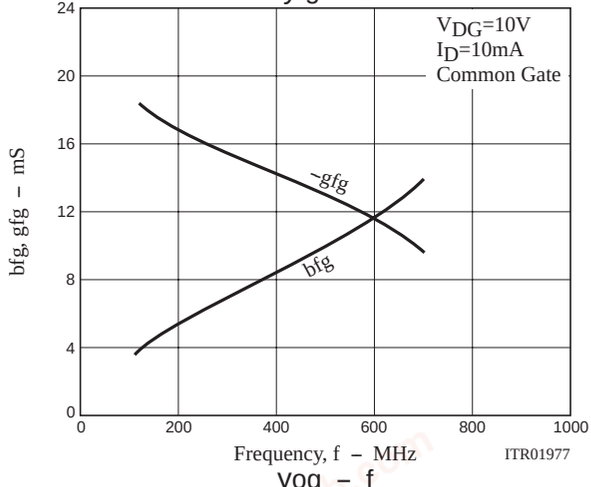
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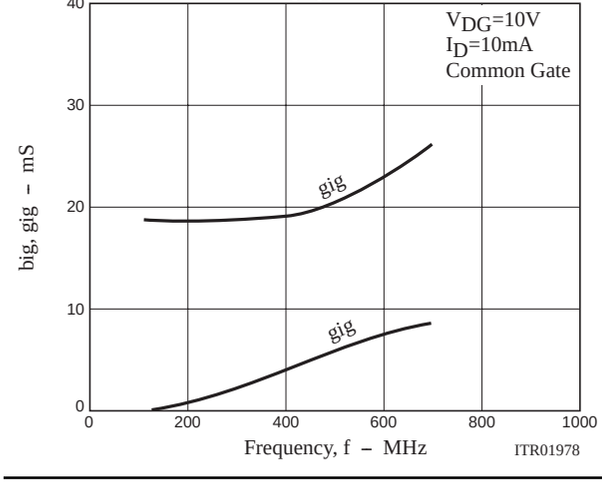
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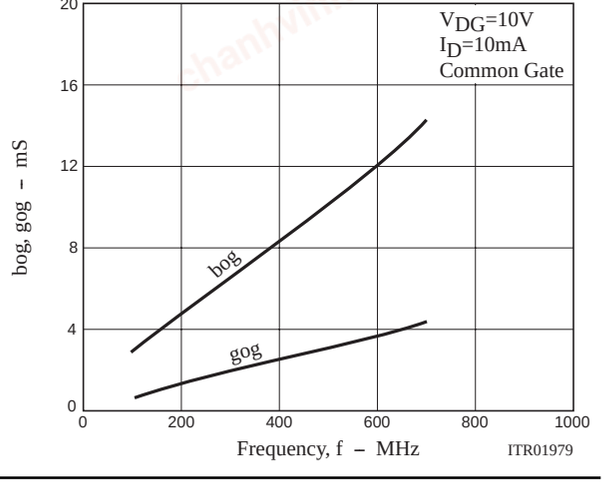
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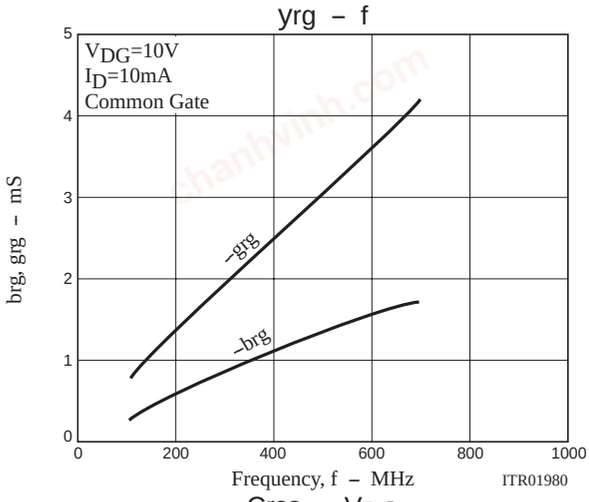
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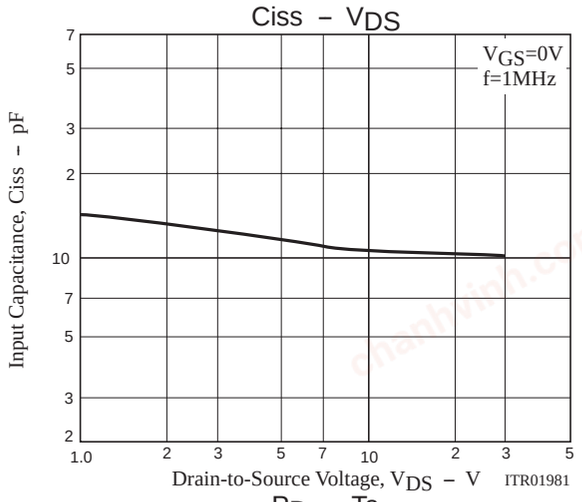


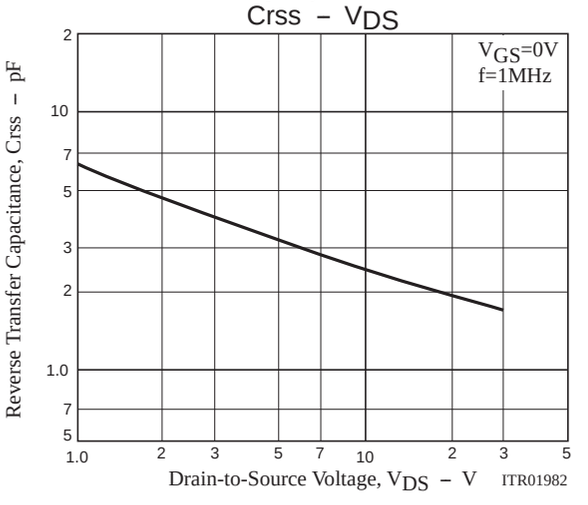
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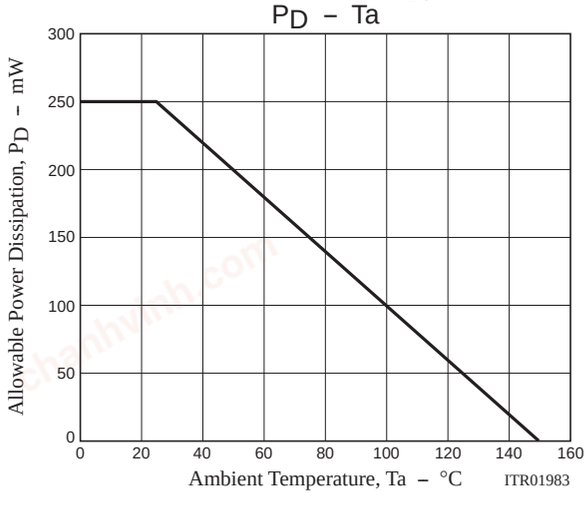


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